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Full Name of Author — Nom complet de l'auteur

JAMES ARTHUR KENT HOLLAND

Date of Birth — Date de naissance

16 MARCH 1942

Country of Birth — Lieu de naissance

CANADA

Permanent Address — Résidence fixe

14 CANHAM CRESCENT
SCARBOROUGH, ONT.
M1S 2H6

Title of Thesis — Titre de la thèse

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Name of Supervisor — Nom du directeur de thèse

DR. G. FITZSIMMONS

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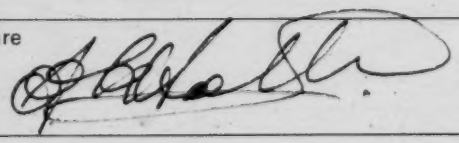

THE UNIVERSITY OF ALBERTA

Preparing for retirement: SCAN in the Canadian Armed Forces, who participates?

by

J.A. Kent Holland

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled, "Preparing for Retirement: SCAN in the Canadian Armed Forces, who participates?" submitted by Captain J. A. Kent Holland in partial fulfillment of the requirements for the degree of Master of Education.

Geo. J. Fitzsimmons
Supervisor

Clarence A. Rent

Peter Calder

Date 25 June, 1984

Dedication

This thesis and the increased knowledge and skills I have gained through the experience of its development are dedicated to my wife Catherine and my sons Michael and Greg. Without their un-ending love, patience, encouragement and understanding, I may never have persisted.

Abstract

The question of this study was "Who of the eligible candidates participates in the Canadian Armed Forces (CF) Second Career Assistance Network (SCAN) Programme and who does not?"

SCAN, a voluntary participation adult pre-retirement training programme, is run for the CF by professional counsellors from within the military. These counsellors have the internal feeling that the participation rate in the programme is low. The investigator, having the same feeling, reduced the question of low participation to the identification of possible characteristic differences between participants and non-participants in the programme.

The Cross (1981) Chain of Response (COR) model, integrating the adult education participation motivation theories of Miller, Boshier, Rubenson and Tough was examined for its ability to distinguish between the two groups. This unidimensional, concise model consists of six variables: Self evaluation, Attitudes About Education, Importance of Goals and the Expectation That Participation Will Meet Those Goals, Life Transitions, Opportunities and Barriers perceived to exist, and Information.

A questionnaire was developed which encompassed the COR and various environmental variables. The survey instrument was mailed to 490 serving and formerly serving CF members, 253 useable returns were received by the investigator.

Stepwise Multiple Regression Analysis was carried out on the respondent data. The analysis failed to reveal any variable measured as being a meaningful discriminator or predictor of participation or

non-participation. Four variables were found to be statistically significant.

It is suggested that the adult education participation motivation approach to the question was incorrect in relation to discovering differences within the two groups of military members. Various observations and possible causes for the lack of identification are discussed, possible alternate methods of approach are suggested, and, possible weaknesses of the COR model in relation to its predictive capability are put forth. Throughout the discussion of the results, questions for future research are raised.

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I am indebted to many who gave their support and encouragement to me in my pursuit of increased knowledge and professional skills.

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Chapter I

Introduction

The Canadian Armed Forces (CF) is a responsible employer who retires its employees at an early age due to the type of job and task demands involved. The CF is concerned about the transition of its members returning to the civilian society after 25 to 30+ years of military service. The transition takes place at what is considered by civilian society to be an early age and effects several thousand CF members per year. The actual retirement age or age ceiling established for individual members depends upon a variety of factors:

A. The physical requirements of member's trade or function

B. Rank

C. Health

D. Performance

E. Recruiting intake level for the member's trade or function

F. Other CF manning level factors.

In general, retirement from the CF is between 40 and 55 years of age.

The trend today in employer help to those having to leave their employ is to provide pre-retirement services. These services may include pre-retirement planning or relocation counselling programmes. Some employers offer both or a combination of the two programmes (O'Meara, 1977; Barrow & Morgan, 1978; Herr & Cramer, 1979; Isaacson, 1981). The CF has been offering these services under various programmes to its prospective retirees since before World War II (CF Officer Development Program (OPDP), Vol 3, 1983).

The current, voluntary participation, CF pre-retirement programme is called the Second Career Assistance Network, or, SCAN (CF Administration Orders (CFAO) 56-20, 1982). SCAN is a federal government inter-departmental programme conducted jointly by the Department of Defence and the Canadian Employment and Immigration Commission (CEIC), commonly referred to by its former title of Canada Manpower. The programme was devised for those servicemembers who are within five years of their pre-determined Compulsory Retirement Age (CRA), or, those members being prematurely released from service due to medical reasons. The spouses of these eligible members are also encouraged to participate in SCAN.

Recently, due to a change to the overall terms of service policy within the CF, additional personnel and their spouses have become eligible for participation. Those members coming to the end of newly established mid-career or short contract dates have been added to the programme participation eligibility parameters (CFAO 56-20, 1982).

The CF portion of the programme includes seminars, workshops, the loan or issue of specifically developed SCAN reading, resource and reference material, and, individual or group counselling. Activities of SCAN include the following:

A. Counselling in the areas of self-evaluation, assessment of skills and attributes; assessment of experience in relation to the civilian labour market; and, adjustment of attitudes and assistance with personal adjustments to pre-perceived changes in life style, location and finances

B. Pre-retirement training or skill upgrading counselling in

relation to the civilian and CEIC sponsored programmes available

C. Job placement counselling and services by the CEIC in conjunction with the CF counsellor

D. Follow-up research on those who have undergone transition.

These components are delivered by officers within the CF known as Personnel Selection Officers (PSOs). Most of the PSOs have either a psychology or a sociology major as part of their university education. In actual circumstances, the follow-up research mentioned in (D) is conducted by the psychologists and sociologists of the CF Personnel Applied Research Unit (CFPARU) Toronto. This present study was supported by CFPARU. The information and data generated will be incorporated into that unit's data bank to assist in the enhancement of the assistance programmes offered to retiring CF members.

Over the past few years a recurring question has been raised by PSOs conducting the SCAN counselling services: Why is the programme being used by only about 15% of the eligible SCAN clientele?

The doubt in the minds of the counsellors arises from what they perceive to be a rather low participation rate in the SCAN programme. Support by means of statistics for this doubt is not available; the agency responsible for the programme has neither the staff nor the capability to maintain ongoing individual participation data. The records kept relate only to the total number of SCAN interviews or counselling sessions held by the counsellors, not to the number of individuals registered in the programme. Further, the data maintained does not allow for a breakdown of who were within five years to Compulsory Retirement Age (CRA), or for that matter, who were the

eligible candidates and who were not. These data do not discriminate between who registered as a member of the CF as a SCAN participant and who registered as a spouse. Thus there is no possibility of obtaining "clean" figures in relation to the programme CF wide.

This investigator, as a SCAN counsellor at Canadian Forces Base (CFB) Edmonton, works for and with clients from Northern Region Headquarters, Yellowknife, North West Territories (NWT); CFB Penhold (Red Deer), Alberta; CF Station Inuvik, NWT; and CF Station Beaverlodge (Grande Prairie), Alberta as well as his home unit, CFB Edmonton. He, as other SCAN counsellors, had the internal feeling that participation in the programme was not what it should or could be.

The challenge to this investigator became the identification of possible clients. The identification process, it is proposed, relies on determining the characteristics of those members who participate in the SCAN programme versus those who do not. Are there differences between the characteristics of SCAN participants and non-participants, also, are there significant differences between participants and non-participants in relation to the following dimensions:

A. Self-esteem

B. Attitudes about education

C. Goal setting

D. Goal achievement motivation

E. Goal evaluation

F. Action motivation or "triggers"

G. Perception of opportunities and/or perceived barriers

H. Information reception or awareness?

Houle (1963), Blishen (1967), Boshier (1973, 1977, 1980a, 1980b),

Tough (1979), and Cross (1981) have identified the listed dimensions as contributors to the adult motivation process in relation to learning activity participation.

The question, simply put, could be stated as, "Who participates in SCAN and who does not participate?"

Purposes of the Study

It is not known if characteristic differences exist between participants in the SCAN programme and those CF members who opt not to participate. This investigation explores the possible existence of characteristic differences between the two groups. Further, it investigates the ability of the instrument designed for this study, and the effectiveness of the model on which it is based, to predict membership in the participant group or the non-participant group. Lastly, the value of the research instrument for future research is explored.

Chapter II

Literature Review

Pre-retirement planning, as described by O'Meara (1977), Barrow and Morgan (1978), Fritz (1978), Herr and Cramer (1979), and Isaacson (1981), appears to be but one aspect of a life long education continuum. The definitions of life long education differ from investigator to investigator; however, in relation to the life cycle of an individual all agree that education is a continuing process. Thus, pre-retirement planning programmes are adult education.

Adult Education

Adult education, in almost every context, is experiencing an explosion in growth. Clark, Devereaux, and Zsigmond (1979) and Rauch (1981) note that the number of adults involved in continuing education or learning has increased two-fold in the last twenty years and expectations for this participation to increase are strong. The role of the educator, or the underwriter of educational costs, has been assumed by a diverse spectrum of agencies: employers, museums, professional associations, church groups, public health agencies and commercial institutions (as well as those already in the business of packaging educational programs) i.e. travel agencies, to name only a few.

This rapid growth in adult education, according to Apps (1980) and Benedict, Collier, Mason, and Wilkinson (1983), may be attributed to factors such as the changing age structure of the population, the

consumer movements, the migration of workers, an aging labour force, the changing status of women and minorities, and, the value placed by the population on being informed and educated. These investigators concluded that the information explosion, coupled with the geometric progression in technology, demands constant upgrading of the population's knowledge solely as a means of keeping abreast of the rapidly changing world in which we live.

Several investigators in the field of adult education have expressed concern about what they perceive as a lack of theory development. Boshier (1971), Ordos (1980) and Cross (1981) state that adult education has suffered due to an apparent misplacement of research emphasis. In his writings of 1971, Boshier declared adult education a "conceptual desert". Dickenson and Russnell's (1971) content analysis of 517 articles appearing in the Washington, DC based journal Adult Education for the twenty year period 1950 to 1970 confirmed Boshier's description. The analysis indicated that 54% of the articles described educational programs or experiences, 23% reported on empirical research and only 3% discussed theoretical formulations. The development of a theoretical basis for adult education appears to have changed very little in the last decade (Cross, 1981).

Barriers to Theory Development

Cross (1981) reports that theory development has lagged for many reasons, the main one being a marketplace orientation to current research precluding the search for explanations of complex phenomena. Boshier (1971), Tough (1979) and Cross (1981) suggest that practical

methodology and marketing "tips" from seasoned adult educators in the field may often be perceived as more useful than theory resulting from research investigations.

A second factor which hinders theory development, according to Cross (1981), is economic restraint. Funding to support those primarily involved in research and theory development appears to be lessening. The current emphasis appears to be upon practical application. Those receiving financial support in the field of adult education have been programme planners and administrators whose first obligation has been to serve the immediate needs of their clientele.

The multidisciplinary approach and the applied nature of adult education combine to form a third adult education theory barrier. It is not clear which of the diverse disciplines should generate the theoretical research (Cross, 1981). Each discipline appears to shift the responsibility to another.

The common theme of the investigators such as Boshier (1971), Ordos (1980) and Cross (1981) is that the theory basis of adult education is weak. To enable researchers to move from descriptive to predictive approaches, adult education requires a concerted effort on theory building.

The Search for a Theory of Adult Education

Some aspects of adult education research have lent themselves to the building of theories. Research into areas such as motivation, learning, group dynamics and adult development originating from knowledge bases in organization dynamics, philosophy, psychology and sociology have been conducted by some investigators. One such

investigator is Cross. In 1981 she produced the beginnings of a theoretical model based on motivational theories to account for adult learning participation. Because her model appeared to have the potential to predict participation or non-participation in the adult education programme under investigation, this investigator turned to it to direct this study.

The Cross Chain of Response Model (COR) portrays participation in a learning activity as "the result of a chain of responses each based on an evaluation of the position of the individual in his or her environment" (Cross, 1981, pp. 125). The model is based on current social motivation theory and is an attempt to conceptualize change as occurring in a "stream of action" as opposed to being a series of discrete events occurring as a result of specific stimuli.

Cross addresses both internal and external psychological factors in her model. These factors appear to have only been loosely connected by investigations to date. Erickson (1982) claims the Cross model to be in the developmental stage, existing primarily as a descriptive device and requiring more use in research to determine if predictions can be made from it. However, due to this model's integrative theory and its appearance of potential ability for prediction, it warranted use in the current study.

Past Works in the Field of Adult Education

A. Learning Typologies - Houle

Houle (1963) did not include potential adult learners in his studies, his concern was with those already active in learning. He wished to explain why those individuals who were involved were active

and to categorize the extent of that activity in relation to the individual's motivation. His studies fail to cover both groups in the current study: participants and non-participants. Houle's work is included in this investigator's review of the literature on the basis of its continuing influence on research in the area of adult education, both from a methodological and theoretical standpoint.

Houle concentrated his studies on explaining the differences between those who were very involved as compared to those who were less involved, yet still in a learning activity. He did not address their basic motivation to enter the learning process. Houle found three subgroups. The first were those adults who used learning to gain specific objectives, he called this group "goal-oriented". Members of this subgroup did not appear to restrict their learning activities to any one type of institution or method. They were seen to select that method or institution which would assist in best achieving their ends i.e. self-directed learning or formal schooling which ever would gain the ultimate goal.

The second subgroup identified by Houle were designated "activity-oriented" participants. These people were involved for the sake of the social aspects of the learning activity. They took courses or joined a group to escape loneliness or boredom, to find companionship or to uphold their environment group traditions. This subgroup appeared to do very little reading, they just attended.

The "learning-oriented" participants who form Houle's third category chose to become involved because they enjoyed the learning process in and of itself, to acquire knowledge for its own sake. Members of this subgroup were observed to be avid readers, and, to

choose jobs and join groups solely for the learning potential such association would offer.

B. Force Field Analysis - Miller

Miller (1967) was one of the few education investigators to challenge the problem of explaining why socioeconomic status (SES) and participation are inevitably related. He used Maslow's (1954) need's hierarchy to form the basis for his social class theory. Applied to the need's hierarchy was Lewin's (1947) force field analysis methodology. This approach enabled Miller to explain why there appeared to be large differences between the social classes in relation to what they wished to gain from adult education participation.

Miller reasoned that people cannot be concerned about the higher level needs in Maslow's hierarchy until their fundamental needs are met. Essentially, one cannot become concerned about self-gratification and self-realization until the lower level needs such as food, shelter, safety and belonging have been met. The implication for adult education arising from this line of thought is that lower social classes will be more inclined towards those educational activities that meet needs related to survival such as job-training and life skills. Conversely, those in the upper SES classes, having already met those lower level needs, will concentrate on programmes leading to achievement and self-realization. Carp, Peterson, and Roelfs (1974), Johnstone and Rivera (1965) and Cross (1979) found similar and supportive results in relation to Miller's theory. From their work it was found that those individuals with a high school education or less were primarily interested in job-related education while those with

greater than a high school education were interested in personal development, self-understanding and recreation related classes.

Miller, using the need's heirarchy, investigated the relationship of educational interests to age and the position of the individual in the life cycle. In the early stages of the life cycle and at younger ages of adulthood, concern appeared to be with low level needs satisfaction such as obtaining a skill to earn a job, or, starting a family. Adults in the latter stages of the life cycle and at older ages, having achieved those needs, appeared to devote more energies to achieving status, attaining self-realization or enhancing prior achievements.

To further explain adult motivation for participation in educational activities, Miller relied upon Lewin's concept of positive and negative forces. Those factors which are positive and promote participation in learning activities were found to be: survival needs, changing technology and job opportunities. Those factors, such as hostility towards education, lack of opportunity and weak family structure were found to inhibit or impede participation and thus were deemed negative forces. The resultant force in the positive/negative equation, according to Miller, forms the motivation of the individual towards participation or non-participation.

To identify the positive and negative environmental forces Miller used a basic sociological approach. He also applied this methodology to the question of participation. Negative forces in the culture of lower class males are correlated with a very high dropout rate from job training programs. Miller suggests that continuation in the learning situation is prevented by negative cultural forces. This SES blockage

occurs even when the learner is aware of the learning opportunity and has gone as far as registering in the class.

It is implied from Miller's model that the methodology for attracting the different SES groups must be tailored to the specific group. A marketing strategy such as an advertising blitz about a course may attract the middle class learner but it may do little to attract the lower class potential student who prefers other means of obtaining information. Miller's work further implied that increased opportunities in education, if they continue to adhere to middle class values, will attract only the middle class and the lower classes will remain basically unaffected. He predicts a growing gap between the social classes in adult education due to misdirected marketing and emphasis.

C. The Congruence Model - Boshier

Boshier (1973) believed that motivation for learning is the resultant of the interaction between internal psychological factors and external environmental factors or the individual's perception of those external factors.

He concluded from his international studies that "both adult education participation and dropout can be understood to occur as a function of the magnitude of the discrepancy between the participant's self-concept and key aspects (largely people) of the educational environment. Non-participants manifest self/institution incongurence and do not enroll" (Boshier, 1973, p. 260). This authority further claims that such incongruencies as between self/ideal self, self/other students, self/teacher and self/institutional environment are

additive. Simply, the greater the sum of the incongruencies, the greater the likelihood of non-participation or dropout. Boshier has not tested this theory on potential participants with which the current study is concerned; however, he has shown via research with enrolled students that those with high incongruence scores are significantly more likely to drop out than those with low incongruence scores. Boshier holds that the lower educational activity rates of adults in lower SES classes, which he observed in his work, is due to the lack of congruence between their lives and what is held, by most observers, to be a largely middle class educational environment.

This authority suggests that in order to increase adult participation in the educational environment we must reduce or eliminate the incongruencies between the individual and his environment. he also claims that individuals who show a high degree of self/ideal self incongruence will likely transfer their dissatisfaction to their environment thus failing to enter, or dropping out of, the educational environment. In this manner, according to both Boshier and Rubenson (1977), self-esteem becomes an important factor in the educational participation decision. If one evaluates himself negatively or has high incongruence between self and his ideal self, he will be less likely to expect success or to experience congruence with the educational environment.

D. <u>The Expectancy - Valence Paradigm - Rubenson</u>

Rubenson (1977) was interested in what motivated adults to participate in education in an organized setting. He approached the question by examining the competing forces in motivation using the work

of Vroom (1964). Rubenson held that education activity is a result of the individual being achievement oriented. Those who wish to "get ahead" will put forth effort in an academic setting or on the job.

Rubenson drew from the research of Lewin, Tolman, McClelland and Atkinson to support his theory. These investigators described all human behaviour as being a result of the interaction of the individual, including the whole of his experience, with the environment as he perceives or experiences it. The strength of an individual's motivation towards any action or non-action is determined by combining the positive and negative forces existing both within the individual and his environment. The resultant force will then have a positive or negative valence and a value.

There are two components of the expectancy portion of Rubenson's theory: first, the expectancy of personal success within an educational activity, and second, the expectation of positive consequences for the learner if successful in that activity. He claims the two components to be multipicative i.e. if either part assumes a zero value, such as if the individual does not perceive himself as being capable of achieving the skills or knowledge contained in the activity, or, if he sees no benefit arising from acquiring the knowledge or skill, the motivational resultant will be zero. He suggests that in order for an individual to enrol in an educational activity there must be a positive valence association with anticipated outcomes. Expectancy of success in the educational activity alone will not initiate action,

Environmental reference groups are considered by Rubenson to play a pivotal role in shaping an individual's attitudes towards

participation. If an individual's association group holds positive attitudes towards participation in learning activities, the likelihood is greather that that individual will avail himself of educational opportunities.

Rubenson's major focus is on how an individual perceives his environment and what he expects to gain if he participates. He emphasizes individually based measures, relying to a lesser extent on demographic variables such as age, sex and race. He, unlike most other adult education investigators, places less emphasis on the role of external barriers to participation. He states that motivation is based on "perceived" situations rather than on "real" situations. In this statement he means what is seen as a barrier by one individual may not be seen as such by another as their perception of reality will differ. In relation to the current study, this reasoning would tend to indicate the existence of differences between participants and non-participants.

E. Anticipated Benefits - Tough

The tenet that learners are able understand and articulate their own learning needs is the basis of Tough's (1979) theory. He developed his theory through studies related to self-directed learning. Tough, Abbey, and Orton (1979) claim that the learner's conscious anticipation of reward for effort is more important than any subconscious or environmental force. Tough builds his model of anticipated benefits on the belief that benefits to be derived from any learning experience are "present in the person's conscious mind" and that this factor is "a significant portion of the person's total motivation for learning". The four stages of Tough's model are:

1. Engaging in a learning activity
2. Retaining the knowledge or skill
3. Applying the knowledge or skill
4. Gaining a material reward (promotion), or gaining a symbolic reward (credits or degrees).

Each of Tough's four stages have anticipated benefits which he clusters into three categories of personal feelings:

1. Pleasure; as in happiness, satisfaction, enjoyment or feeling good
2. Self-esteem from regarding self more highly, feeling more confident or maintaining self-images
3. "Others" (from the individual's environmental group) wherein others regard the individual more highly, praise him, like him and feel grateful to him.

The Tough model provides an emphasis in focussing on the conscious forces involved in motivation for learning (Cross, 1981).

F. Life Transitions - Aslanian and Brickell

The hypothesis of Aslanian and Brickell (1980) is that transitions such as marriage, the arrival of children, job changes and retirement require adults to seek new learning. Their work appears to be a combination of theoretical explanation and descriptive research. In their studies they found that 83% of the 744 adult learners responding to telephone interviews named transitions in their lives as the motivating factor for their involvement in further learning. Of the respondents motivated by transitions, 56% stated the transitions involved their jobs or careers and 13% reported that changes in family

life such as getting married, having children, buying a house, and moving served as the impetus to gain new knowledge. Change of health was reported as the impelling life transition by 5%, the remaining 26% mentioned changes in religion, citizenship, art and leisure in their reponses.

When Tough (1979) carried out his study he found only one-third of his subjects were involved in major life transitions. The discrepancy between Tough's and their findings was explained by Aslanian and Brickell as being caused by Tough limiting his study to those who were involved in self-directed learning while theirs included "other" directed learning as well. Alsanian and Brickell defined self-directed and other-directed learning in the same manner as Tough. They held that an individual who sought knowledge or skill independent of direction or advice of institutional personnel was self-directed in his/her learning. The converse is true for other-directed learners. They found that individuals involved in major life transitions were more likely to seek out formal "other" directed learning while those involved in less important (as perceived by the individual) transitions tended to opt for self-directed learning.

According to Aslanian and Brickell's findings, if a CF member approaching CRA considers it to be a major transition, participation in the formal SCAN programme would tend to be one of his primary options.

G. Chain of Response Model – Cross

Cross (1981) based her development of the Chain of Response (COR) model mainly on her analysis of the works of Miller (1967), Boshier (1973) and Rubenson (1977). She found that these investigators

appeared to have several similar assumptions and findings:

1. All viewed participation as an interaction between the individual and his or her environment as perceived by the individual.
2. All drew from Kurt Lewin's force field analysis theory i.e. participation is a result of the individual's perception of positive and negative forces in any given situation.
3. All believed the individual has some degree of control over his or her destiny; thus rejecting the Freudian tenet that individuals are captives of their subconscious or the Skinnerrian concept that people are powerless to change the stimulus - response chain. Thus the three researchers were perceived by Cross to be "congitivists".
4. All three relied on the reference group theory i.e. SES class structure and membership therein is a factor in determining participation in any given activity.
5. In some manner, all three claimed that certain personality types i.e. those with low self-esteem, will be more difficult to attract to education.
6. The concept of congruence and dissonance was utilized in some form by all three; Boshier specifically dealt with the concept, Miller emphasized compatibility (congruence) and Rubenson's expectancy and valence approach assumed congruence between participants and anticipated outcomes.
7. The basic premise of Maslow's needs hierarchy that the lower level needs must be met prior to moving on to higher-order needs fulfillment was evident in the work of all three.

8. All three stated that the role of expectancy is important. Rubenson based his theory on this factor, the other two assume that the expectation of a reward for effort is a large factor in adult education activity motivation.

In combining the work of the three theorists mentioned, Cross began a process of organizing the current knowledge in the field of adult education motivation.

She claims her model is consistent with the current trend in the psychology of motivation in which behaviour is being increasingly seen as a "constantly flowing stream" rather than a series of discrete events. This interpretation is consistent with the 1978 de Charms and Muir review of motivational psychology in which they state that "the problem for motivation is to understand the determinants of change in the stream of action, not to find what drives impel specific behaviors" (Cross, 1981, p. 125). As can be seen in Figure 1, the COR model implies this "stream" of events. Activity begins with the individual and moves increasingly outward towards external conditions, it then completes the "loop" by returning to the individual. Thus the "stream of action" is from the person, through the environment, then back to the person to reinitiate the process. The pivotal point in the model remains the individual reacting to inner factors and then those from the environment. Cross notes that this action within her model depicts the true interaction of the forces involved in the motivation of adults towards learning activities.

Cross explains the points of the COR model in the following manner:

1. Point A, Self-evaluation, is where the chain of responses leading to participation originates. Individuals who are

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Chain-of-response (COR) Model for Understanding Participation in Adult Learning Activities

From Adults as learners: Increasing participation and facilitating learning (page 124) by K. Patricia Cross, 1981 San Francisco: Jossey-Bass.

achievement oriented or have confidence in their own ability, are more likely to "put themselves to the test of a new learning situation" whereas those who lack confidence in their own ability will tend to avoid those actions that may present themselves as a threat to the individual's self-esteem.

2. Point B is Attitudes About Education. Those who disliked school as children are less likely to place themselves in a perceived competitive situation similar to one in which they did not do well. Further, Cross explains, the individual attitudes toward education are influenced indirectly by the reference and membership group common attitudes.
3. Point C, the Importance of Goals and the Expectation That Goals Will Be Met, is from the work of Tolman, Lewin, Atkinson, Vroom and Rubenson. If a goal is important to an individual it has a positive valence, and, if the individual holds that it can be achieved, it has positive expectancy. This will result in strong motivation to participate. Conversely, if the goal is not held as important by the individual a negative expectancy results and motivation for participation is decreased. If the goal is seen as out-of-reach a zero expectancy could result, this leads to inaction of the individual. Cross states that the resultant motivation from the points A and B, attitudes about self and those about education in combination, influence point C to the extent that an individual with high self-esteem and positive attitudes towards education will most likely expect success in an education related goal, whereas an individual with low

self-esteem and negative attitudes about education will most likely doubt success.

4. Point D, Life Transitions, is where the person is presented an environmental influence calling for adjustment. Aslanian and Brickell, as previously discussed, identify these transitions as positive forces for learning. Havinghurst (1972) depicts this point as the individual's "teachable moment" where he or she is of special sensitivity for learning new things. Other investigators refer to the influences at this point as being "triggers". Cross states that these moments or triggers depend on developmental tasks that are predictably associated with each phase of the life cycle i.e. the proper time to teach someone about retirement planning methodologies is when he or she is about to retire or is in the process of retiring.
5. Point E is Barriers and Special Opportunities for adult learning. If a strong desire to participate has resulted from the influence of the previous points of the model, it is likely that the force of that desire will encourage the individual to overcome barriers perceived to be modest and to seek special learning opportunities. The weakly motivated to this point, however, may be prevented from seeking special opportunities and educational activity action even by weak barriers. These barriers may prevent the weakly motivated from proceding to the next point.
6. Point F, the Availability of Accurate Information is considered by Cross to be a crucial environmental factor. It is information about opportunities or programmes that links

> the motivated learner to an appropriate opportunity. If opportunities are not discovered by the individual, participation is stifled or non-existant; simply, if you do not hear about, read about or otherwise find out about a programme or activity, you cannot become a part of that activity.

Summary of the COR Model

Cross summarizes the findings of Miller, Boshier and Rubenson in the construction of the COR model. However, she departs from the work of these investigators by suggesting that the influences of the environmental factors in the model are of less importance than the attitudes and psychological variables from within the individual involved. She contends that if investigators wish to understand why some adults are non-participants in available learning activities, the variables at the beginning of the COR model must be emphasized. This would suggest that examination of motivation towards adult participation in learning activities should be concentrated on the effects of attitudes about education and self on the subsequent environmental variables. Cross appears to imply that once the impetus for participation is established at points A and B in the model, the following variables at points C through E act only as facilitators or inhibitors to action motivation.

The Cross COR model was adopted by the investigator to guide this study for two reasons. The first is due to its stream of event approach which is in agreement with the current trend in motivational psychology theories (de Charms & Muir, 1978). The second reason for

the choice of this model was its apparent conciseness and clarity of explanation of the participation motivation process leading to adult educational activity.

Chapter III

Method and Procedures

Approach

The Second Career Assistance Programme (SCAN) is the Canadian Armed Forces (CF) pre-retirement adult education programme designed to assist military retirees plan and execute a reduced stress transition back into civilian life. The programme is of a voluntary participation nature. The CF officers responsible for performing the counselling and instruction for SCAN have expressed concern about the apparent low participation of eligible personnel in the programme. The impetus for the current study was provided by that concern. It became a question of why the majority of potential CF retirees eligible for SCAN participation opt not to do so. The investigator reduced the question to a process of the identification and analysis of the possible characteristic differences between those who participate and those who do not.

In order to determine if characteristic differences exist between the participant and non-participant groups, a statistical analysis of respondent answers to a survey questionnaire was performed.

Prior to the issuing of the questionnaire, the proposal for this research was submitted to the governing agency within the CF responsible for psychological or sociological research involving CF members. Approval and permission to carry out the study was granted by the Director of Personnel Selection, Research and Second Careers (DPSRSC) on a conditional basis.

The first condition was that the anonymity of the respondents was to be maintained throughout and that any and all data resulting would be used in a group data analysis format. This condition was met and has been maintained throughout this study.

The proposed research also involved former members of the CF in its sample and therefore a second condition required the vetting of the entire survey package through the Privacy Act authority of the CF to ensure the privacy of the former members. Thus, the thesis proposal, the questionnaire and its covering letters (Appendices I and II) were submitted to the Privacy Act Cell within the Directorate of Personnel Information Services (DPIS) at National Defence Headquarters (NDHQ), Ottawa for their analysis of content and intent. Approval from that agency was granted on the condition that the investigator, and any other person involved in the study, remained ignorant of the names and addresses of the subjects who were retired from the CF. This condition was met by a process to be described later.

Pre-test of the Survey Questionnaire

After all the editing conditions set out by the Director of Personnel Selection, Research and Second Careers (DPSRSC) and the CF Personnel Applied Research Unit were met, the entire package was submitted to a pre-test.

The subject pool for the pre-test consisted of 25 CF personnel at CFB Edmonton randomly selected from the yearly 5 year-to-compulsory retirement printout supplied to each SCAN counsellor for his/her responsibility area by the Directorate of Personnel Information Services. The pre-test sample was subdivided into 18 Other Ranks

(Corporal to Chief Warrant Officer) and 7 Commissioned Officers (Captain to Lieutenant-Colonel) to approximate the full study ratio. A letter of explanation (Appendix III) accompanied the pre-test package sent to each member. In the letter, the recipient was asked to complete the total survey and to make critical comments as to its clarity of instruction, content and format.

Twenty-one of the pretest packages were returned. The comments attached to their returns indicated difficulty in understanding only two sets of instructions. In four instances the respondents supplied versions of what they perceived as more concise and understandable directions. As the versions supplied were essentially the same in all four responses, the wording of the instrument was altered to reflect the respondents' specifications.

None of the returned pre-test packages held negative comments as to the length or item content of the questionnaire. However, several respondents did indicate that a change in question order could add to a greater return rate. These respondents stated that the location of the Battle (1981) Self Esteem Inventory (SEI) items should be changed from a first met position to a further-in-the-survey location. The basis of their observation was that they felt some of the actual sample pool may find the items in the SEI threatening and stop at that point, thus failing to complete the entire questionnaire. A second common observation made by the pre-test respondents was that the Opportunities for Participation related questions appeared to "fit" better in the Goals and Expectations section rather than standing on their own. These appeared as valid comments to the investigator, therefore the items were moved to their current position in the final survey format.

There were no major content changes made to the instrument or the accompanying covering letters as a result of the pre-test.

Research Instrument

The research instrument was designed by the investigator with the assistance previously mentioned. It consisted of two major divisions: a series of biographical/environmental items, and, those questions related to the Cross Chain of Response model variables.

The survey questions were of two types: closed-end questions requiring yes/no, checklist and single entry fill in the blank responses, and, Likert-type scale questions. There was space provided at the end of the questionnaire for respondent comment on the survey, the SCAN programme or any other concern related to retirement.

The questionnaire was composed of 260 questions. In some instances respondents were not asked to answer all the questions on the survey.

A. Biographical/Environmental Variables

The biographical/environmental division questions were modelled after sociological surveys from the CFPARU test library and a recent Government of Alberta educational survey. Additional items were developed by the investigator to focus the responses on the differences between the respondents' CF background, their parental SES and current working conditions in the five year period prior to compulsory retirement.

The items in this division centred on such topics as the respondents':

1. Current age and age on retirement
2. Sex
3. SES factors (Blishen, 1967):
   a. Mother tongue
   b. Parental occupation
   c. Parental, own and sibling educational levels
4. CF career working environment, level of responsibility and performance
5. Marital and dependent status at CF retirement
6. Concern and satisfaction levels in relation to current retirement plans covering five major subjects (Wyspianski, 1979):
   a. Finances
   b. Geographical move
   c. Employment
   d. Housing
   e. Leisure
7. Participation or non-participation in SCAN.

(Appendix IV)

B. Chain of Response Model Variables

1. Self-evaluation

Cross defines this variable as the evaluation of the individual of his/her achievement orientation. The investigator interpreted her definition to mean self-esteem. This interpretation is supported by the theories of Boshier (1973) and Rubenson (1977), and is mentioned by Cross in her writings in support of the model as the main contributing factor to an individual's achievement orientation. She does not

however, define self-evaluation as the individual's own perception of his/her level of self-esteem.

The Culture-Free Self-Esteem Inventory for Children and Adults (SEI), form AD for adults (Battle, 1981) was chosen to measure this COR model variable. The determining factor for the use of this standardized instrument over others in existence was that it was developed in Canada, using Canadian subjects.

Battle chose the 40 questions for his inventory after an item analysis indicated they possessed the most power of discrimination; his original pool contained 85 items. Battle's inventory contains four subscales:

a. General Self Esteem

b. Social Self Esteem

c. Personal Self Esteem

d. Lie Scale (a measure of Defensiveness).

Examples of the items which were found by the Battle to load on the individual scales are:

1. General Self Esteem -

   Are you happy most of the time? Yes or No

2. Social Self Esteem -

   Do you have only a few friends? Yes or No

3. Personal Self Esteem -

   Are you easily depressed? Yes or No

4. Lie Scale (Defensiveness) -

   Do you like everyone you know? Yes or No.

Content validity of the SEI was ensured through the development of a construct definition of self-esteem followed by the writing of items

intended to cover all areas of that definition. The construct definition was:

> Self esteem, as measured by the Culture-Free SEI for children and adults, refers to the perception the individual possesses of his own worth. An individual's perception of self develops gradually and becomes more differentiated as he matures and interacts with significant others. Perception of self-worth, once established, tends to be fairly stable and resistant to change (Battle, 1981, p. 14).

Battle's comparison studies between his SEI and Stanley Coppersmith's (1967) Self-Esteem Inventory indicated that significant correlations for the total sample groups ranged from .71 to .80. He also found that his SEI scales correlated favourably with the scales of other measures of personality such as A.T. Beck's Depression Inventory and the Minnesota Multiphasic Personality Inventory.

Persons respond to each of the 40 items in the Battle SEI by checking either a "yes" or a "no" column after each question. Positive items were scored 1 for "yes" responses and 0 for "no"; negative items were scored in the reverse manner. The person's score in each subscale is the sum of the weighted alternatives chosen by him. High scores indicate positive self-esteem in the General, Social and Personal subscales, and, low defensiveness in the Lie Scale. (Appendix V).

2. Attitudes About Education

An Education Scale as developed by Rundquist and Sletto (1967) and used in a COR model based case study be Erickson (1982), was chosen as the means of determining individual differences in attitudes towards education (point B, Figure 1). Although the scale was developed in the late 1930s, Shaw and Wright (1967) found it to exhibit sufficient generality to apply to the context of that era. Erickson (1982) also

found the scale to be valid in a 1980s context. The criterion for selecting this scale was that it does not require the respondent to be currently involved in an educational activity. This investigator inserted six items (item numbers B20, B23, B25, B26, B27 and B28 in Appendix VI) to relate the scale more directly to the military population (Wyspianski, 1979).

A Likert-type five point alternative selection format ranging from "Strongly Agree" to "Strongly Disagree" was employed in the scale. There were, after modification, 28 items to the scale. For positive items toward education, the responses were weighted from 5 for "Strongly Agree" alternatives to 1 for "Strongly Disagree" selections. Weights for negative items were reversed. The sum of the respondent's weighted selections resulted in his score. Positive attitudes toward education were indicated by high scores.

The authors of the original instrument reported split-half reliabilities of .82 and .83, based on a sample of 500 males and 500 females. The scale was developed using 2882 subjects spanning the environments of high school students, college students and men on relief. The scale appeared to have good content validity for attitudes toward high school education. The number of items referring to college education were restricted. Six additional questions were inserted to add to content validity in relation to the ongoing military training and education experiences of the respondents. Concurrent validity of the original scale with other measures of attitudes toward education were reported by Rundquist and Sletto (1967).

3. Goals and Expectations of Achievement

In order to measure Cross' (1981) construct of achievement motivation which is:

> Persons who lack confidence in their own abilities (frequently termed failure-threatened or deficiency-oriented) avoid putting themselves to the test and are unlikely to volunteer for learning which might present a threat to their sense of self esteem (p. 125),

the achievement-motivation subscale of Jackson's (1974) Personality Research Form (Form E) was used.

Jackson's subscale consists of sixteen items scored on a three point Likert-type scale: "Important", "Very Important", and, "Not Important". As a result of Erickson's (1982) findings in relation to the use of this subscale in measuring Cross' goal/expectation of success variable, this investigator modified the scale to a five alternative Likert-type response format. The choices for the revised scale became: "Very Important", "Fairly Important", "Important", "Slightly Important", and, "Not Important". The alternative separation was added because Erickson found the original scale lacked sufficient scope for individual differences. Some of the original items were replaced in total and the wording of others was modified by the investigator to reflect a military context. An example of a replacement item is question CA4, Appendix VII:

Before: Be a better parent

After: Become better prepared for CF retirement

Other items which were either reworded or replaced were: CA6, CA7, CA8, CA14, CA15 and CA16.

Jackson (1974) claimed the test-retest reliability of this subscale was .80, based on a sample size of 135 people. He further

stated that concurrent validity appeared sufficiently high, taking into account the scores of the achievement-motivation subscale with similar measures.

It appeared there was a favourable correspondence between Jackson's (1974) description of a high achiever as one who aspires to accomplish difficult tasks, maintains high standards, is willing to work toward distant goals, responds positively towards competition, and is willing to put forth effort to attain excellence and Cross' definition of an achievement-oriented learner.

The items on the revised scale were all positive, thus the resulting weighting of the responses ranged from 5 for "Very Important" to 1 for "Not Important". The higher the score of the individual, the greater was his achievement orientation factor in the Cross COR model.

Goals for learning questions modelled after items designed by Carp, Peterson, and Roelfs (1974) were used to obtain the respondent's general educational goals as well as specific ones related to second career preparation and retirement planning. The items designed by Carp et al., were part of a larger study in the United States sponsored by the Commission on Non-traditional Study examining the learning needs and aspirations of a cross-section of American adults. In the case of goals related to second career planning and retirement planning education, only one item was inserted by the investigator to make the list relate more to goals that CF retirees might have in enrolling in educational activities. That question is number CB2 kk in Appendix VIII. However, ten items from the original list were deleted due to their apparent non-applicability as declared by the pretest respondents. Examples of the dropped items were:

a. American (Canadian) citizenship

- members of the CF must be Canadian citizens

b. Languages such as French, German, Chinese

- there is adequate training in these languages offered by the CF, or, there may exist a certain resentment in the CF prospective retiree in relation to forced bilingualism.

These are only two examples of the items the pretest respondents saw as not applicable to the CF member.

The original list developed by Carp et al., (1974) and used by Erickson (1982) was of a "check-if-applicable" format. The score was obtained simply by summing the check marks. As this method appeared to lack a measure of the individual's commitment to each goal checked, or the importance of the goal to the individual, the investigator changed the format to a Likert-type scale. The alternatives resulting from this modification were scaled in relation to the amount of time the respondent was willing to spend on attaining each goal listed. The weighing applied was 5 for the greatest time commitment to 1 for no interest declared.

Another question from the Carp et al., survey related to the importance of obtaining credit or official recognition of some description for academic involvement was used by this investigator. The original question asked the respondent to select one of eight possible options. The response choices were reduced to a Likert-type five point scale. The choice ranged from "Very Important" to "Not Important" with the weighting at 5 for the high importance end of the scale to 1 at the not important end.

Further, it was apparent from pre-test comments that the items relating to Opportunities for Participation appeared to those respondents to "fit" better in combination with questions related to goals rather than standing as discrete sections. Thus, the Opportunities for Participation items were placed within that section.

Carp et al., (1974) and Erickson (1982) provided a list of options considered enabling conditions or opportunities for learning. The subject was asked to select one item from each list. The original lists held items related to learning format such as lectures, self-study and discussion groups, plus questions on frequency of study sessions and location of learning. The investigator modified the single answer lists to Likert-type scales to be completed after each item. This was necessitated by the fact the original format was intended for an interview follow-up methodology where the single answers could be explored on an expanded basis as required. The new five point Likert-type rating scale ranged from "Strongly Preferred" to "Avoid At All Costs" for learning format questions, from "Strongly Agree" to "Strongly Disagree" for frequency items, and, from "Strongly Prefer" to "Strongly Dislike" for location related items. This approach was seen by the investigator as an appropriate method of ascertaining the respondent perception of opportunities for learning in a non-interview situation.

The first of the goal related questions simply asked the person to answer "yes" or "no" in relation to having any particular learning objectives. If the answer was "no", the person was referred to the next section dealing with point D of the COR model. If the response was "yes", the person was asked to complete the remainder of the

goal/expectations section. The first Carp et al., modelled educational activity question immediately followed the "yes"/"no" response. The second modified answer question dealing with the importance of gaining official recognition for learning activities was then inserted. The commitment and format preference questions were then asked. There were no negative items and all weighting was of 5 for the most preferred to 1 for the least preferred alternative. The cumulative, weighted total was the score of the person in relation to goals, expectation and purpose of goal attainment, and, commitment to those goals. (Appendix VIII).

4. Life Transitions

Eleven items which appeared to summarize the 43 empirically selected items of the Holmes and Rahe (1967) Social Readjustment Rating Scale were listed. Respondents were asked to simply check-off (place an "X" beside) any and all items they perceived as applicable to them. The items chosen referred to possible life changes which could have affected the respondent within the last year. The areas covered by the list related to changes in personal or family health, work, finances, living conditions, intra-family associations, social environment, social activities and recreation. An open-ended "other" item ended the section to allow the respondent to supply any life changes affecting him the list failed to cover. (Appendix IX).

5. Opportunities and Barriers

The Carp, Peterson, and Roelfs (1974) study was again the modelling source for this section. The checklist developed by these

investigators contained descriptions of events or situations that might block an individual from enrolling in a course or prevent him from persuing desired learning. An additional item was developed and inserted which asked the respondent to rank order the three most important barriers to his participation from the previously checked list. (Appendix X).

As mentioned in the section on Goals and Expectations, the respondents to the pre-test advised that the items pertaining to perceived Opportunities for learning appeared to "fit" more appropriately in that section. Thus the modified Carp et al., (1974) lists dealing with perceived opportunities are discussed in section 3.

6. Information

This section dealt with the sources of information upon which the individual relies. Here the questionning related to how the individual found out about the SCAN programme specifically, which three methods of information dissemination he found most effective, and, whether or not information on the SCAN programme was readily available. The checklist was developed by the investigator and contained a number of possible ways CF members may have heard about the programme. An open ended "other" question ended this section to allow the respondent to fill in any categories of information dissemination he found applicable that may not have been included in the list provided. The following question simply asked the respondent which three methods from the list he perceived the most effective. The last question, again in the format of a Likert-type five point scale, asked him to rate the availability of SCAN programme information. (Appendix XI).

Sample

The sample population selected for the survey consisted of 350 serving and 140 retired CF members, for a total of 490. The two sub-divisions were composed of 50 Other Ranks (Corporal to Chief Warrant Officer) and 20 Commissioned Officers (Lieutenant to Major-General) for each of the seven years of the study time frame. The established time frame was between the five-year-to Compulsory Retirement point and the two-year-past retirement point.

The selection of 50 Other Ranks to 20 Officers was derived from the interview ratio of Officers to Other Ranks established by the SCAN statistics maintained by the investigator from 1977 to 1981 (see Table 1.1).

Further, the selection of sample members was limited to the calendar years 1981 to 1988. Thus, those subjects in Table 1, row 7 retired in 1981 and those subject in Table 1, row 1 are scheduled for retirement in 1988.

Random sampling of the population was ensured by the following procedures:

A. The DPIS computer was instructed to select any member or former member of the CF of any rank who fell within the retirement and ratio parameters as outlined; excluding the ranks of Private, Lieutenant-General, and General. The three excluded ranks in combination, according to DPIS, contribute less than one percent to the total of those CF members eligible for participation in SCAN.

B. The computer operator and the information retrieval officer of DPIS, plus the non-study involved SCAN staff at Canadian Forces

Table 1

The Sample Composition

	Years to CRA (-) Years past CRA (+)	# OR[a]	# Offr[b]	Total
1.	-5	50	20	70
2.	-4	50	20	70
3.	-3	50	20	70
4.	-2	50	20	70
5.	-1	50	20	70
	--- Retirement Point ---			
6.	+1	50	20	70
7.	+2	50	20	70
	TOTALS	350	140	490

[a]Other Rank (OR). [b]Officer (Offr)

Base Edmonton were the only persons to see or handle the mailing labels produced by the computer. The investigator had no input as to who entered the sample other than setting the original parameters for that sample.

C. Due to the Privacy Act provisions placed on the study, no persons other than those at DPIS saw or handled the mailing labels for the 140 retired CF members selected by the computer. The 140 survey packages required for that portion of the sample were shipped to DPIS whose staff affixed the labels and mailed the envelopes.

In response to a further requirement established by DPSRSC, the proposed survey instrument and its covering letters were sent to the Canadian Armed Forces Personnel Applied Research Unit (CFPARU) Toronto for review. Changes to the wording of the survey and letters were suggested by the staff of CFPARU. These editing comments were incorporated into the final draft of the survey package.

Analysis

The investigator received a total of 278 returns. Of these, four were received after the analysis had begun, 16 were returned with incomplete data, and, five were answered in such a manner or mutilated to the extent that they were unuseable. Therefore, a total of 253 returns were used in the analysis.

The following were the steps taken to convert the information on the returned questionnaires into workable data for analysis. First, the answers were coded and placed on a plastic overlay, one for each page of the survey instrument. The code was completely numerical. The

numbers were then transferred to an investigator designed working data sheet and independently checked for accuracy. The single survey data sheets were then used to transfer the numbers to the keypunch spreadsheets which held the data for up to 40 respondents (a limit of 80 numbers per sheet per respondent). There was a total of 35 of these sheets. After the transfer to the keypunch spreadsheets, the numbers were again checked for accuracy. The sheets were then given to a keypunch operator who created the data cards. The data was then entered into the investigator's computer file (DATA.S).

At this point the investigator asked for consultant assistance to ensure these data contained on the file were ready for analysis. The consultant ran two tests of accuracy, checking to establish that there existed the proper number of rows and columns, first in relation to the number of item responses, and second in relation to the number of surveys coded. He then ran a check to ensure that each respondent's data was in the proper format. At the end of this process and after a few minor corrections in relation to misplaced numerals, these data were ready for analysis.

The analysis was of two methods. The first was Stepwise Multiple Regression Analysis (Division of Educational Research Services MULR10 programme) to find if any of the dependent variables were discriminate in function and predicted the dependent variable, participation. Three runs using this method were done. The first on the COR variables alone, the second on the demographic, SES, and CF background and working conditions variables, and the third on a combination of both the COR and the latter variables. The second method of statistical analysis applied to these data were a One-way Analysis of Variance on

the means of the participants versus the non-participants in relation to the sum of the COR variables. The substantiation for the use of these methods and the results received from the analysis are outlined in the following chapter.

Chapter IV

Results

The 253 returned questionnaires collected information pertaining to the six variables comprising the Cross Chain of Response (COR) model. The first variable, Self-evaluation, was composed of three contributing factors, as seen by Battle (1981), and a lie scale. These factors were first, General Self-Esteem, second, Social Self-Esteem, and third, Personal Self-Esteem. The second variable, Attitudes About Education, resulted from the respondent's past experience in school as well as from the reference group or groups of which he was part. Goals and Expectations formed the third variable. The importance of goals to an individual in relation to factors such as motivation for the learning process, subject matter to be learned and ultimate target such as a degree or certificate as well as the associated expectancy of success have been found to be factors in voluntary learning. The fourth variable, Life Transitions, has also been perceived as being an influential factor in stimulating an individual's interest for learning. Such "triggering" events as divorce or loss of job may transform a latent desire for education into action. The fifth variable, perceived Opportunities and Barriers, accounted for those factors which can facilitate participation such as the availability of time or flexible scheduling of courses, or those factors which may block participation such as cost or distance from the learning centre. The final variable was that of Information. It plays the role of linking motivated learners to available learning opportunities.

The questionnaire also collected biographical, descriptive and historical data from the respondents. These areas were tapped to enable the study to determine if such variables as the respondent's socio-economic background, current employment, or, concern about or satisfaction with retirement plans at the conclusion of his military career, have impact on SCAN programme participation or non-participation.

The intent of this research was to determine if any portion of, or the entire COR model, and/or the socio-economic background, current employment, concern/satisfaction with retirement plans variables could be used as a basis to identify SCAN programme participants versus non-participants. This intent resulted in the methodology of the data analysis centering on the ability of those variables to predict group membership. In this vein, the responses were subjected to Stepwise Multiple Regression Analysis to determine if any of the variables, or all of them in combination, had the ability to help explain the variance of the dependent variable - group membership (participants or non-participants in the SCAN programme). This form of the analysis of variance was utilized due to its power to discriminate and indicate the strength of prediction from two or more independent variables to a dependent variable (Byrkit, 1975). These data were obtained from the same sample of the military population and prediction on the basis of that sample was by means of a regression equation ($y' = a + b_1 x_1 + \ldots b_k x_k$); where y' is the value predicted (participation/non-participation) from x, a is the constant term and $b_1 \ldots b_k$ are the independent variable regression coefficients. Inherent in the chosen methodology is discriminate analysis, or the ability to place

respondents into two groups on the basis of their answers to the instrument's questions. Multiple regression is well suited to predictive analysis and is fundamentally oriented to explanatory analysis. In Stepwise Multiple Regression Analysis, according to Kerlinger and Pedhazur (1973), variables are not "thrown" into regression equations but are entered in on the basis that they add to set if there exists a significant semipartial correlation with the dependent variable, or when they have "reasonable" potential for explaining the variance of the dependent variable. This method also has the ability to explain the discrimination found, in that it produces the weights of the variables in the discrimination. "No method seems so well-suited to doing this as multiple regression" (Kerlinger & Pedhazur, p. 429).

Section I: COR Model variables

The multiple regression analysis of the COR model variables resulted in the elimination of all but two variables. The entered variables arose from the "Availability Of Information" question of the Information section and "the Personal Self-Esteem Scale" of the Battle SEI. The excluded independent variables failed to discriminate or have significant semipartial correlations with the dependent variable at the 0.05 level of probability and thus were not entered in the regression equation.

The Availability of Information variable deals with the respondent's evaluation of the availability of information about the programme prior to his compulsory retirement. The amount of group membership variance accounted for by the "Availability of Information"

question as expressed by R-squared is 0.107 or approximately 11%. This is statistically significant in that the sequential F-test value for this variable is 30.149 ($p < 0.001$); however, according to Nunnally (1978) and Byrkit (1975), with 89% of the variance of the dependent variable left unexplained confidence in predicting group membership by means of this variance is extremely low.

The three Battle SEI scales were treated as separate independent variables for analysis purposes. The Personal Self-esteem Scale was the only one to enter the regression equation. The amount of variance of the dependent variable explained by this factor is 2.8%, with a sequential F-test value of 8.085 ($p < 0.001$). Again, not meaningful in relation to predicting group membership (Byrkit, 1975; Nunnally, 1978).

The two independent variables enter the regression equation $y' = 0.218 + 0.113x_{14} - 0.043x_{4}$ where the Information variable raw score Beta coefficient is 0.113 and the Personal Scale factor variable raw score Beta coefficient is -0.043 (0.218 being the constant term). The combination of their variances results in a total of 13.5% of the variance of the dependent variable being explained.

Section II: Socio-demographic variables

The socio-economic background, current employment, concern about and satisfaction with retirement plans variables were then subjected to the same analysis. The process resulted in 22 of 24 variables being excluded from the regression equation at the 0.05 level of probability.

The first of the two variables being included in the equation was the respondents' stated perception of "assessment of supervisors in the last five years leading to compulsory retirement". The amount of

dependent variable variance accounted for by this independent variable, as expressed by R-squared, is 0.029 or 2.9%. The sequential F-test value in this instance is 7.429 ($p < 0.007$), meaning that the value is statistically significant. However, little confidence is placed in its true predictive capabilities as 97.1% of the dependent variable variance is left unexplained (Byrkit, 1975; Nunnally, 1978).

The other variable in this set was the respondents' stated "concern level about retirement plans in relation to employment". The amount of variance of group membership accounted for by this variable is 2.2%, with a sequential F-test value of 5.951 ($p < 0.003$). Again, according to Nunnally (1978) and Byrkit (1975) statistically significant but explaining only a minute percentage of the dependent variable variance and therefore not meaningful in relation to prediction of group membership in the general population.

These two variables enter the equation $y' = 0.542 - 0.154x_{17} + 0.054x_3$ where the assessment of supervisors variable Beta coefficient is -0.154. It appears that the higher the supervisory assessment, the greater is the propensity to not participate. The concern about retirement plans in relation to employment variable Beta coefficient is 0.054 and 0.542 is the constant term. In combination the two independent variables result in 5.1% of the dependent variable variance being accounted for thus leaving the strength of prediction for membership in either the participant or non-participant group in definite question (Byrkit, 1975; Nunnally, 1978).

Section III: Combined I and II variables

The four variables entering the two separate regression equations

as outlined in sections I and II were then combined in a third multiple regression analysis run to determine their relative contribution to the variance of the dependent variable. This was also done to determine if, when placed in combination with each other, there would be an increase in their ability to explain the variance of the dependent variable.

The results of this run were almost identical to the first two except that the independent variable, "concern level about retirement plans in relation to employment", was eliminated. In combination, the variables: Availability of Programme Information; Assessment of Supervisors; and, the Personal Scale of the Battle SEI, account for 0.158 (R-squared) or 15.8% of the variance of y (group membership). This percentage leaves 84.2% of the variation of y unexplained, thus, even in combination, the predictive ability of the variables while statistically acceptable is not meaningful in an applied situation (Byrkit, 1975; Nunnally, 1978).

Section IV: Analysis of Variance

The last step in the analysis of the data was the Analysis of Variance between the means of the two groups (participants and non-participants) in relation to the sum of the COR model variables. The results of this analysis are displayed in Table 2.

Critical F for n = 200 at the 0.05 level of probability is 3.89, critical t (two-tailed) for n = 200 ($p < 0.05$) is 1.97. Thus the results listed in Table 2 indicate no significant difference between the COR model summed variables total scores for the two groups.

Table 2

One-way Analysis of Variance Comparing Participants and Non-participants

Group	# cases	Mean	SD	SE	F Value	2-tail Prob
Par	76	506.79	132.99	15.26	1.08	0.721
Non-par	177	480.48	138.09	10.38		

Pooled Variance Estimate		
Value	df	2-tail Prob
1.40	251	0.161

Summary

The questionnaire, as developed for this research, failed to indicate any significant difference between the summed variables of the COR model between participants and non-participants. Further, analysis of data indicated no meaningful predictive value to the questionnaire, or any portion of it, in relation to predicting participation or non-participation in the SCAN programme of the respondents. In Table 3 is a summary of the means, standard deviations and score ranges for the COR model variables resulting from the analysis of their predictability in relation to participation in the SCAN programme.

Table 3

Means, SDs and Score Ranges for the COR Model Variables[a]

	Mean	SD	Range
Battle SEI-Social[b]	7.06	1.11	0 - 8
Battle SEI-General[b]	13.75	2.27	0 - 16
Battle SEI-Personal[b]	6.38	1.77	0 - 8
Battle SEI-Lie Scale[b]	5.48	1.99	0 - 8
Attitudes About Education	100.07	10.50	28 - 140
Objectives of Activity[c]	51.48	11.37	16 - 80
Specific Subject Goals	77.05	37.90	41 - 205
Credit or Recognition[c]	3.00	1.89	1 - 5
Life Transitions	3.20	2.49	0 - 12
Barriers to Activity	6.92	4.13	0 - 23
Commitment to Activity[d]	141.79	75.19	66 - 330
Location of Activity[d]	40.34	18.73	17 - 85
Format of Activity[d]	24.52	11.78	11 - 55
Sources of Information	4.15	2.46	0 - 18
Availability of Information	3.19	1.38	1 - 5

[a] $n = 253$. [b] Self-evaluation variable. [c] Goals and Expectations of Success variable. [d] Opportunities and Barriers variable.

Chapter V

Discussion of Results and Observations

This study was conducted for the following purposes. The first was to determine if differences in characteristics exist between SCAN programme participants and non-participants in relation to the education activity participation motivation factors as outlined by Miller (1967), Boshier (1973), Rubenson (1978) and Cross (1981). The second purpose of the research was to investigate the ability of the instrument designed for this work, and the model used as a guide, to predict group membership in relation to participation or non-participation in the SCAN programme. The last purpose was to explore the value of the study in relation to future research in this area.

The results of this study are discussed in the order that the purposes are listed.

Determination of Characteristic Differences Between the Groups

Analysis of the results of this survey indicates no meaningful differences exist in characteristics between SCAN participants and non-participants in relation to the following COR model dimensions:

A. Self-evaluation

B. Attitudes towards education

C. Educational goal setting

D. Goal achievement motivation

E. Goal evaluation

F. Life transitions

G. Perception of opportunities and/or barriers

H. Information reception or awareness.

Further, it appears from the data analysis that characteristic differences do not exist between the two groups, participants and non-participants, in relation to demographic factors, SES, CF background and working conditions over the last five years of service. None of the foregoing dimensions appears to aid in the identification or separation of respondents into one or the other of the two groups. The specific variables investigated in this section of the study were:

A. Current age and age at retirement

B. Sex

C. SES factors (Blishen, 1967):

1. Mother tongue
2. Parental occupation
3. Parental, own and sibling education levels

D. CF career working environment, level of responsibility and performance

E. Marital and dependent status immediately prior to CF retirement

F. Concern and satisfaction levels in relation to current retirement plans covering:

1. Finances
2. Geographical move
3. Employment
4. Housing
5. Leisure.

The COR Model Variables

A. Self-evaluation

Of the four Battle SEI (1981) scales, only Personal Self-Esteem appears to have a predictive value as to participation group membership. However, while the predictive capability of this scale is statistically significant, it is not meaningful (Byrkit, 1975; Nunnally, 1978). This would tend to indicate that in relation to those CF members within five years to compulsory retirement and former members up to two years after retirement, a certain homogeneity of self-esteem exists. The investigator was unable to find past research results in this area; therefore, it is left to future investigation to refute or support the supposition of homogeneity of self-esteem existing within the CF. Is there a possibility that over the respective careers of the CF members, those factors composing self-esteem are raised or lowered to a common level by membership in the CF?

In relation to Boshier's (1973) congruence model of adult education participation motivation it may be that the majority of the CF retirees experience self/educational institution or self/educational peer incongruence and thus fail to participate. However, this line of thought is not supported by the current research findings which indicate a trend to congruence throughout the study sample.

According to Cross' summarization of Miller's, Boshier's and Rubenson's theories in her building of the COR model self-evaluation variable, the majority of those responding should be participating i.e. those with high self-esteem tend to be attracted to adult educational programs. The data from the current study appears to indicate the opposite as only 76 of the 253 respondents were participants.

B. Attitudes About Education

Analysis of the survey data failed to elicit any significant differences between SCAN participants and non-participants in relation to their respective attitudes about education. The analysis indicates that the CF retiree, regardless of group membership, has positive attitudes about education.

Cross stated in her support of her theoretical model of educational participation motivation of adults that the more positive the educational attitudes of an individual, the greater the tendency of that individual to participate. The results of this study show a substantially positive attitude about education in general for all respondents, hence there should be a trend toward a greater number of participants. Again, only 76 of the 253 respondents are or were active in SCAN, this does not agree with Cross' contention. It is possible however, in agreement with Tough (1979), that the more positive the attitudes about education held by an adult, the more self-directed, informal and independent are his/her learning habits. The latter reasoning may account for the low participation rate in SCAN. It remains for future research to support such a hypothesis. If Tough's thoughts are supported, it may be that the majority of the CF retirees would prefer to seek out their own references and direct their own learning activities in preference to the formal setting of the SCAN programme.

C. Importance of Goals and Expectation That Participation Will Meet Goals

The results indicate that the overall sample was low in achievement orientation. It would appear that Cross' contention that individuals with high self-esteem and positive attitudes about education tend to be high in achievement orientation is not supported by the research findings of this study. The results are more aligned with Rubenson's (1977) combined forces approach in that the low level of achievement orientation, as measured, may have sufficiently reduced or cancelled the previous strong inner participation motivation. This would result in low or zero motivation to become active in the SCAN programme. In relation to Cross' explanation of the motivational process the question remains, if the CF retirees have commonly high self-esteem and positive attitudes about education factors, why is their measured achievement-orientation mean score as low as it appears to be?

The remaining items of the survey pertaining to the importance of goals and expectation of success were also incapable of predicting participation or non-participation in the SCAN programme. The items concerning the strength of commitment to listed goals and the importance of anticipated benefits were answered in such a common manner by members of both groups that both variables failed to enter the regression equation. It would appear that this investigator's results fail to agree with either Tough's theory of anticipated benefits or Cross' achievement-orientation construct. According to Tough and Cross, adults with high self-esteem and positive attitudes about education are also positive in regards to expectation of success

and becoming involved in learning activities. The current study results do not support these aspects of the Tough and Cross theories.

D. Life Transitions

The CF retirees and those about to retire appear to have a common number of life changes regardless of group membership: participants or non-participants in SCAN. There is also a lack of evidence of a trend towards any particular type of life transition other than the one they all share, job loss. These commonalities covering both groups preclude prediction of group membership by means of this variable of the COR model.

In relation to Alsanian and Brickell's (1980) findings, the sample was common in their appraisal of the importance of the life transitions happening to them. Whether or not the respondents considered the transition important enough to list, failed to predict their involvement or non-involvement in the SCAN programme.

E. Opportunities and Barriers

Commonality of perception in relation to educational opportunities and barriers to learning activities once again disallowed prediction of participation or non-participation in the programme. Analysis of the results indicates that all respondents were low in both perceived opportunities and barriers. Thus Cross' contention that a low level of perceived barriers would lead to a tendency for participation when high self-esteem and positive attitudes about education are present in the respondent appears not to apply to the subjects of this study.

F. Information

From the data analysis, this independent COR model variable was determined to be the largest contributor to the explanation of variance of the dependent variable: group membership. Awareness of the existence of the SCAN programme provided the largest statistically significant prediction of participation or non-participation in the learning activity. However, this possible solution to the identification problem cannot be relied upon. Both Byrkit (1975) and Nunnally (1978) stated that while an independent variable is found to predict the dependent variable in a statistically significant manner, it cannot be considered meaningful if it fails to explain more than 50% of the variance of the dependent variable. Awareness of the SCAN programme explains only 11% of the variance of the group membership dependent variable in the regression equation.

Miller's (1967) contention that the SES of a group should determine the methodology of attracting the individual members of that group to any given adult educational activity may explain the statistically significant predictive value of this variable. Members enter the CF from a cross-section of Canadian society, thus also a cross-section of SES groups. They carry with them into the CF the values and attitudes of their originating SES. Over their careers in the CF they become a member of a single SES and assimilate the common values and attitudes of that group (Blishen, 1958). It may be that the member's former SES group values and attitudes retain a residual influence which causes a characteristic difference to be identified. The common value system and attitudes learned while a member of the CF, it is suggested, would over-ride the previously diverse systems to the

extent that some differences would appear but in insufficient strength to be meaningful.

The Demographic, SES, CF Background and Working Conditions Variables

A. Current Age and Age on Retirement

The analysis of data from the survey does not support age as a discriminating factor in predicting an individual's participation in the SCAN programme. This finding is not in agreement with the theories on adult education participation motivation as outlined by Miller (1967), Boshier (1973), Rubenson (1978) and Cross (1981).

This discrepency may arrise from the fact that the sample was drawn from the age 40 to 60 group which was designated by the foregoing theorists as a singular comparison group.

B. Sex

The female gender represents less than three percent of the total CF retiree population at this time (DPIS, 1983). However, as there has been a considerable effort in the past few years to increase the membership of females in the CF, this variable was placed on the survey to determine if the female responses differed from those of their fellow male CF members. Of the 253 surveys returned, only three were completed by females. This number was considered too low to cause differences to be elicited, therefore the female responses were not dealt with separately. The variable was dropped from the analysis.

C. SES

The socio-economic status of an individual's family during his/her childhood was found by Blishen (1967) to be a determining factor of that person's eventual occupation. He stated that he found in his studies that an individual tends to attain a SES occupational grouping higher than his/her parents. A portion of this attainment process, according to Porter, Porter, and Blishen (1973), is education or training beyond that of his/her parents. Miller (1967), Boshier (1977), Rubenson (1978) and Cross (1981) all support the possibility of an individual's motivation in an adult educational activity being influenced by his/her family SES. In conjunction with this line of reasoning the investigator attempted to determine if family SES factors during the CF member's formative years would act as predictors of SCAN participation or non-participation.

The analysis indicates that family SES factors such as: mother tongue, parental occupation, and, parental, own and sibling education levels; failed to act as predictors of SCAN participation or non-participation. The reason for these negative results could be, once again, the over-riding influence of the common CF SES group values and attitudes assimilated over the member's career. The question as to the existence of such a common value and attitude system within the CF has already been referred to as a possible subject of future research.

D. CF Career Working Conditions, Level of Responsibility and Performance Variables

The common opinion of Miller (1967), Boshier (1973), Rubenson (1977), Tough (1979) and Cross (1981) in relation to the influence of

working conditions on adult educational activity motivation is that they are determining factors as to the strength of an individual's motivation toward participation. The results of this study indicate that the only variable entering the regression equation from these items is the individual's perception of his/her supervisor's assessment of performance in the last five years of his/her CF career. This predicting variable, while statistically significant, failed to be meaningful as it accounted for only 3% of the variance of the participation variable (Byrkit, 1975; Nunnally, 1978). The prediction itself was of a negative valence. It appears that the higher the respondent claimed his/her supervisor's assessment, the less likely that individual would participate in SCAN.

This tendancy is supported by Tough's (1979) findings that the more positive the self-esteem of an individual, the more that individual would gavitate to self-directed, informal learning.

E. Marital and Dependent Status Immediately Prior to Retirement Variables

McNeil (1976), in his studies related to the problems faced by the military family when their father retired from the United States military establishment, found that the family and retiree stress levels increased as the number of dependents (wife and children) increased. He also found that an increase in stress levels reduced the self-esteem of the individual undergoing retirement. Thus, the number of dependents a CF retiree has or had on retirement could affect the adult education participation motivation of that individual. It also could

act as a predictor of participation or non-participation in the SCAN programme.

The analysis of the current study data failed to find this variable acting as a predictor.

F. Concern and Satisfaction Levels in Relation to Retirement Plans Variables

Wyspianski (1979) in his research for the writing of the SCAN programme book, SCAN for the Future, found the major concerns of the CF member approaching compulsory retirement to be related to: finances, a geographical move on retirement, employment after retirement, housing after retirement, and how to employ any excess leisure time. These concerns, if of sufficient strength, should propel the individual into activity related to gaining knowledge to help alleviate them (Alsanian and Brickell, 1980). Therefore, these concerns, if measured in a study to identify which respondent would participate in the SCAN programme and which would not, should act as predictor of the participation variable. The analysis of the current study data did not identify these factors as participation predictors.

The COR Model as a Guide to Determining Differences Between the Two Groups

The COR model was chosen as the guide for this study for two basic reasons. First, the model was one of the few available which portrayed the current trend in the psychology of motivation theories in which behaviour is seen as a flowing stream rather than a series of isolated events leading to an action (de Charms and Muir, 1978). The second

reason for the selection of this model was due to its apparent clarity and conciseness in its amalgamation of the adult education activity motivation theories of Miller (1967), Boshier (1973), Rubenson (1977), Tough (1979), and, Alsanian and Brickell (1980).

It appeared to the investigator that Cross had achieved well defined and interrelated constructs. It was assessed that she had set out the interrelations among those constructs clearly. Finally, it appeared that she was successful in formulating a theory which explained the phenomena of participation. The foregoing are the components of a good theory as explained by Kerlinger (1973).

The investigator believed that by using the COR model the answer could be found to the question: Who participates in SCAN and who does not participate in SCAN?

However, during the conduct of the study it became apparent that the model was not effective as a guide to finding the answers to the questions posed. The following are two observations in relation to the construction of the Cross COR model arising from its useage in this study.

A. Lack of Specificity of Variables

The COR model variables were found to be too general in their definition or to lack definition. Cross does not define the self-evaluation variable as to what type of evaluation is involved. Is she wishing to measure self-evaluation in relation to academics alone, or the social or personal factors as well? She does not specify the actual type of self-evaluation involved in this variable which she

claims is one of the two most critical inputs to her model. She appears to leave the determination of type to the user.

The attitudes about education variable is treated in like manner. A review of attitude theories by Shaw and Constanzo (1982) indicates that attitudes are composed of many dimensions. Cross treates this variable in a unidimensional manner, claiming that an individual's evaluation or perception of his/her own abilities related to education plays a crucial role in the development of his/her attitudes toward current and future educational endeavours. She fails to include such factors as the influence of SES group attitudes toward the same subject, or the influence of the individual's role within his/her SES group, or the group processes involved within the individual's SES group to name only three. Cross admits such environmental factors play a role in determining participation, however, she appears to underemphasize their impact. She states the first two variables dealing with internal factors, if positive in valence and strong in value, will overcome any negative input met further along in the environment variables of her model. This line of thought tends to counter the thoeries of such as Triandis (1971), Weiner (1974) and research in the areas of reinforcement, field, cognitive role and group processes as discussed by Shaw and Constanzo (1982). The COR model, if to become effective in a predictive capacity, requires expansion to include the additional influences on individual attitudes from the social, demographic and environmental circumstances of that individual (Boshier, 1980a).

The investigator attempted to counter these perceived weaknesses in the model by including a section in the survey instrument dealing

with demographics, SES and environmental conditions. However, when these variables were analysed both discretely and in combination with the COR model variables, they failed to increase the predictive capabilities of the research instrument. It would seem that an after the fact approach to adding such factors to the Cross variables had no effect on increasing the model's effectiveness in relation to predicting participation in the SCAN programme.

B. The Weakness of a Linear Design

Cross appears to underestimate the complexity of the interrelationships among the variables in her COR model. As an example, life transitions such as the impending or actual loss of job will produce some level of grief and its accompanying action blockages such as denial, self-doubt and depression (Hopson, 1981; Schlossberg, 1981). The life transitions variable is essentially isolated from the self-evaluation variable in the COR model. Thus, the possible decrease of self-concept resulting from the individual's reaction to actual or impending job loss as described by Schlossberg (1981) becomes at the least, distanced from or at the worst, unexamined as a factor of the self-evaluation variable.

The information variable appears to stand alone in the COR model. It is claimed by Cross to play a role in determining how an individual perceives barriers and opportunities, however, its possible influence on self-esteem and attitudes about education are markedly reduced by its lack of direct connection with those variables. Information is awareness about the environment in which we dwell, is it not? Does not awareness about oneself come from the individual's environmental group

as well as from within? The concept of feedback to self from the environment appears to be minimized by Cross.

The linear design of the model appears to disallow the actual flow of variable interrelations that act upon the individual i.e. for an individual with a high locus of external causality (Weiner, 1974), the external factors may influence internal factors such as self-evaluation and attitudes about education to such an extent as to impede progress towards participation. The action may stop at the self-evaluation point of the COR model if the external influences are of sufficient strength.

Cross appears to have oversimplified the interrelational processes in order to produce an easily understood, linear model. However, it is possible that the behavioural differences between the individual CF members are so complex that no existing model could account for all the components involved. Further, due to the possible commonality of behaviour in the military SES group as previously discussed, a specific model designed for the military is required. This possibility is a viable question for future research.

Discrimination Ability of the Research Instrument

The data analysis indicate that the instrument designed for this study was incapable of dicriminating between participants in SCAN and non-participants. The discovery of the cause or causes of this inability is a question for future research. Three possible explanations are discussed in the following paragraphs.

A. The Validity of the Instrument

The item validity of the instrument may have been altered as the investigator modified items and response formats. As previously discussed, the fact that this study was of a survey approach and the models used were of an interview or survey/interview follow-up approach necessitated the alteration of the items. Further, Erickson in his 1982 case study based on the COR model, expressed the belief that his results were reduced in strength due to the model's underemphasis of environmental factors. Using Erickson's arguments, the investigator added environmental factors to his survey questionnaire, this modification in and of itself may have reduced the capability of the instrument to predict participation. The additional items were not tested as to validity or reliability, this could be the subject of future research.

B. The Question of Instrument Sophistication

It may be that CF members form a SES group which stands alone. If this is so, the previously discussed possible homogeneity of that group may call for a highly sophisticated survey instrument. Such an instrument must result from a series of studies which would eliminate items of low discretion ability, leaving the stronger ones to uncover the possibly minute characteristic differences involved. This study could form the basis for such research.

C. The Incorrect Theoretical Approach

Possibly the adult educational participation approach to the question is not suited for the pursuit of the answer to the question:

Who participates in SCAN and who does not participate in SCAN? It could be that if one approached the question from the life transitions point of view, a more definitive result could be obtained. The CF members all face at least one common life transition: job loss. The grieving process approach mentioned previously may produce models to guide the study in a more appropriate manner. If this methodology were used, a basic assumption would have to be that the CF members approaching compulsory retirement will undergo the phases of grieving of job loss. The members, it would be assumed, travel the grieving processes at different rates and with differing intensities of reaction. This could cause measurable differences to arise. Some suggested questions are: Do CF members approaching retirement undergo the grieving process due to imminent job loss? If so, do these members suffer varying amounts of denial, depression, self-doubt and immobilization? Do they recover at different rates? If so, who recovers best or least and why?

The Value of this Study to Future Research

Under each topic of the discussion of results the investigator has raised questions for future research. It would not aid in the clarity of this study to reiterate those questions out of context. Simply, this study failed to answer the questions set out in its purpose. It did however, raise many other questions which could act as impetus to further research. Questions such as: What percentage of eligible CF members do their pre-retirement preparation outside the military? Or, asking an open-ended question such as: "Why did you, or did you not, participate in SCAN?", to elicit individual specific reasons. For its

ability in raising new possible research questions, and for the theoretical and practical knowledge gained by the investigator for future application in his CF occupation which is research based, the study is considered of definite value to future research.

Observations

During the conduct of this study, several observations relating to the work itself and to the sample being studied were raised. Some of the major observations are as follows.

The first was in relation to the conditions under which the CF allowed the study to be conducted. Due to the anonymity condition imposed by the Privacy Act regulations, this researcher was unable to conduct any form of follow-up to clarify certain survey responses received. If given the opportunity to pursue incomplete or non-codable responses, possibly more data could have entered the analysis. This increased data may have resulted in an enhancement of the significance of the results and a clearer understanding of SCAN participation or non-participation.

The second was that the CF personnel eligible for participation in the programme may or may not do so due to their perception of the facilitators of SCAN. The factor in this case is credibility. The fact that the CF offers the programme through serving officers (PSOs) raised the question of the PSOs true ability to conduct the programme in the minds of some of the prospective and actual retirees. The question simplified was: "As the PSO is not in the civilian mileiu, how can he/she have the required knowledge of what is taking place in the civilian sector of society any more than I?" Possibly, if the

services of SCAN were provided by a civilian or a civilian agency, participation would increase.

Again, relating to perception, the PSO has many roles in his/her capacity as a specialist officer in the CF. It appears that over the years of the prospective and actual retirees's career, the individual may have been referred, or, had a close co-worker referred to a PSO. The individual may have developed a negative attitude towards PSOs due to the outcome of such a referral. Possibly another officer classification should be tasked with delivering the SCAN services.

Another observation was that in many instances there is a serious misconception of just what the CF's responsibility is to the prospective retiree on retirement. Many respondents stated that they were entirely disappointed in the SCAN programme, the PSO, and the military in general because "they" (the military) did not "get" the respondent a job in the civilian labour market on retirement from the CF. It appears that a conserted effort to fully explain and outline the parameters of the SCAN is required as it became evident the users of the service do not understand its limitations.

The foregoing are just examples of possible barriers to participation not measured by this study. However, they became observed through the reading of the survey comments, including those mutilated and uncodable, which were returned to the investigator. These observations could form the basis of further research into the question of SCAN participation.

Summary

This study was undertaken to aid in the understanding of why the majority of CF members approaching retirement do not participate in the SCAN programme. The problem was subsequently reduced to a question of the identification of possible characteristic differences between participants and non-participants. The theoretical approach used to guide the study was based on the variables outlined by adult educational activity theorists such as Miller, Boshier, Rubenson and Tough. A theoretical model which integrated those theories in an apparently clear, concise and understandable manner was chosen to form the basis of the methodology. This model was developed by Cross (1981) and called the Chain of Response Model due to its stream of events approach to understanding adult education participation.

A research instrument was developed by the investigator to examine the variables in Cross' COR model. Additional items were added to the survey questionnaire to elicit information relating to demographic, SES, CF background and working conditions. These additional items were inserted due to the findings of Erickson (1982). He performed a case study of adult involvement in parental education using the COR model and found that it failed to achieve meaningful understanding of why parents participate in such programmes. He suggested that one reason may have been that Cross failed to emphasize the impact of environmental factors.

The analysis of the results of the survey revealed the inability of the instrument and the model to identify characteristic differences between the participants and non-participants. The reasons as to why

this result occurred are possibly many, however, it is suggested by this researcher that one of the causes lies in the theoretical approach used. The analysis tends to indicate that the CF members form a homogeneous SES group in relation to self-esteem and attitudes about education, the crucial variables in the COR model according to its developer. With this though in mind, the question arises as to the appropriateness of a COR Model approach to the question of SCAN participation. The application of alternative theoretical approaches is proposed by the investigator. One example of an alternate approach was to utilize a grieving processes model, another was to develop a CF member specific model. The option to pursue these approaches, or others, is left to future research.

Another possible cause for the inability of the COR model and the resulting survey instrument to find meaningful differences may rest in the simplicity of the model itself. It may be that the Cross COR Model, or any other, may be unable to detect the possible complex factors involved in SCAN participation motivation. These questions could provide a basis for future research endeavours.

Regardless of the cause involved, this study failed in its attempt to answer the question posed as its basis: Who participates in SCAN and who does not participate in the programme? It did however, indicate that the approach taken by the investigator is not the appropriate one and that future examination of the question should be approached from another direction.

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Appendix I

Canadian Forces Base Edmonton
Lancaster Park, Alberta
T0A 2H0

September 1983

Dear Servicemember,

As the Base Personnel Selection Officer (BPSO) at Canadian Forces Base Edmonton, and over the past few postings, I have been deeply involved in the Canadian Forces Second Career Assistance Network (SCAN) Programme. In my years as a second career counsellor within SCAN and its predecessor, the Civilian Employment Assistance Programme (CEAP) one question kept reappearing: "Why are some members making use of the programme and why are others not?" This question has become the basis of my thesis research at the University of Alberta.

The enclosed questionnaire I am asking you to complete is the first step in a practical answer to the basic question. This survey is rough and appears long; however, with you helping by answering it and returning it to me promptly I may be able to smooth it out and tighten it up. This could result in a concise, effective method of pin-pointing prospective individual retiree areas of concern. If we (myself with your help) can do this, then the SCAN programme could become more individualized, or more tailored to the member rather than the system, and thus far more effective in providing assistance where it's needed.

Remember, in answering this questionnaire, you will be assisting in two ways: first, I will have data from which to complete a practical, purposeful thesis; and second, those who follow you in their transition will, I sincerely hope, benefit.

Your name and address were randomly selected by the National Defence Headquarter's computer and applied to the envelope containing this package. I have no knowledge of the names of those selected. I am asking your help in supplying answers to the survey questions on an anonymous, group data basis, only. For this reason you will notice that neither your name nor any other identifying data are asked for anywhere in this package.

PLEASE COMPLETE THE QUESTIONNAIRE NOW, IF YOU PUT IT ASIDE YOUR HELP MAY ARRIVE TOO LATE FOR INCLUSION. PLEASE DO IT NOW AND PLACE THE COMPLETED PACKAGE IN THE MAIL TODAY!

I thank you for your time and consideration for those who will follow you in retirement from the Canadian Armed Forces.

Sincerely,

J.A. Kent Holland,
Capt.

Appendix II

Canadian Forces Base Edmonton
Lancaster Park, Alberta
T0A 2H0

September 1983

Dear Former Servicemember,

As the Base Personnel Selection Officer (BPSO) at Canadian Forces Base Edmonton, and over the past few postings, I have been deeply involved in the Canadian Forces Second Career Assistance Network (SCAN) Programme. In my years as a second career counsellor within SCAN and its predecessor, the Civilian Employment Assistance Programme (CEAP) one question kept reappearing: "Why are some members making use of the programme and why are others not?" This question has become the basis of my thesis research at the University of Alberta.

The enclosed questionnaire I am asking you to complete is the first step in a practical answer to the basic question. This survey is rough and appears long; however, with you helping by answering it and returning it to me promptly I may be able to smooth it out and tighten it up. This could result in a concise, effective method of pin-pointing prospective individual retiree areas of concern. If we (myself with your help) can do this, then the SCAN programme could become more individualized, or more tailored to the member rather than the system, and thus far more effective in providing assistance where it's needed.

Remember, in answering this questionnaire, you will be assisting in two ways: first, I will have data from which to complete a practical, purposeful thesis; and second, those who follow you in their transition will, I sincerely hope, benefit.

Your name and address were randomly selected by the National Defence Headquarter's computer and applied to the envelope containing this package. I have no knowledge of the names of those selected. I am asking your help in supplying answers to the survey questions on an anonymous, group data basis, only. For this reason you will notice that neither your name nor any other identifying data are asked for anywhere in this package.

PLEASE COMPLETE THE QUESTIONNAIRE NOW, IF YOU PUT IT ASIDE YOUR HELP MAY ARRIVE TOO LATE FOR INCLUSION. PLEASE DO IT NOW AND PLACE THE COMPLETED PACKAGE IN THE MAIL TODAY!

I thank you for your time and consideration for those who will follow you in retirement from the Canadian Armed Forces.

Sincerely,

J.A. Kent Holland,
Capt.

Appendix III

5760-4 (BPSO)

Canadian Forces Base Edmonton
Lancaster Park, Alberta
T0A 2H0

July 1983

Dear Fellow Servicemember,

Enelosed are two covering letters and a questionnaire I have developed to help us understand the participation or non-participation of Canadian Forces (CF) members in the Second Career Assistance Network. I ask you to help me make them more applicable and accurate by reading over the covering letters and completing the questionnaire. Once you have done this, I then ask you to go over the package again and make comments as to how you see improvements can be made. Please be as critical as you can because once your comments have been applied to the package items, the questionnaire will be sent to 350 serving members and 140 former members of the CF across Canada and in Europe. The more accurate, understandable and clear the instructions and questions, the more valuable and useable will be the responses from the people to which they are sent.

You were selected by me from the Directorate of Personnel Information Services computer list of CF members within five years to Compulsory Retirement. The selection process involved obtaining 18 names of members from that list who represent Other Ranks from Corporal to Master Warrant Officer, and, seven Officers from Captain to Lieutenant Colonel. The reason these proportions were chosen was because they appear to represent the actual SCAN participation ratio.

A more complete explanation of the purposes of this study is outlined in the enclosed covering letters. However, at this time I ask for your help in making the study of more value to us all. Please attempt to complete your review of the package as quickly as possible. I know this is a busy time of year and I'm asking you to expend a fair amount of time and effort, but I sincerely feel that we could all benefit from the results of this extra work.

Please forward your completed packages to the undersigned at the BPSO office. Your responses will be held in the strictest confidence.

Thank you for your assistance in this endeavour.

Sincerely,

J.A.K. Holland
Captain

Appendix IV

SECTION Q

NOTE: PLEASE PLACE CHECKMARKS IN SPACES PROVIDED OR CIRCLE ANSWER AS REQUESTED.

Q1. Are you a) male ( )
b) female ( )

Q2. Have you become concerned about your retirement plans in relation to the following areas:

	Taken action	Intend action	Concerned	Briefly concerned (no action)	Not at all concerned
a) Finances...	( )	( )	( )	( )	( )
b) Geographical move....	( )	( )	( )	( )	( )
c) Employment.	( )	( )	( )	( )	( )
d) Housing....	( )	( )	( )	( )	( )
e) Leisure....	( )	( )	( )	( )	( )

Q3. What was the first language you learned to speak in the home?
a) English ( )
b) French ( )
c) German ( )
d) Ukrainian ( )
e) Other, please specify here: (.....).

Q4. Where were you raised? Check a,b,c, or d.
a) Rural or farm..... ( )
b) Small town (1 to 5 thousand pop.)..... ( )
c) Large town/small city (5 to 50 thousand). ( )
d) Big city/urban..... ( )

Q5. What was your father's formal education level? Circle one:
(i.e. if he successfully completed Gr. 10, circle that number)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 16+

Q6. What level was your mother's formal education? Circle one:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 16+

Q7. What is the highest level of education of your brothers and/or sisters? Circle one:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 16+

Q8. What is the highest level of your own formal education? Circle one:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 16+

Q9. Place the name of your father's occupation in this space:

(.....)

Q10. Place the name of your mother's occupation in this space:

(.....)

Q11. In what service or element of the CF did you first enroll?
a) Sea (RCN)
b) Land (Army)
c) Air (RCAF)

Q12. In what element of the CF did you serve the longest?
a) Sea (RCN)
b) Land (Army)
c) Air (RCAF)

Q13. In what area of employment did you serve the longest? Please place the NAME and MOC NUMBER of that employment in the space provided:

Trade/Classification ..... MOC .....

Q14. In what type of unit did you serve the longest?
a) Isolated (includes ships and overseas)..... ( )
b) Semi-isolated..... ( )
c) Rural, without full non-DND educational services..... ( )
d) Rural, with full non-DND educational services..... ( )
e) Urban..... ( )

Q15. From what element of the CF are you retiring, or, did you retire?
a) Sea ( )
b) Land ( )
c) Air ( )

Q16. In what type of unit did you or will you serve out your last 5 years in the CF?
a) Isolated (includes ships and overseas)..... ( )
b) Semi-isolated..... ( )
c) Rural, without full non-DND educational services..... ( )
d) Rural, with full non-DND educational services..... ( )
e) Urban..... ( )

Q17. What type of responsibility will you or did you have on retirement from the CF?
a) Tradesperson..... ( )
b) Technical supervisor..... ( )

c) Administrative supervisor.. ( )
d) Middle management..... ( )
e) Senior management..... ( )
f) Executive management..... ( )

Q18. What is the estimate (or actual) average of your best six years' income up to retirement from the CF?
a) Under $15,000..... ( )
b) $15,000 to 19,999..... ( )
c) $20,000 to 24,999..... ( )
d) $25,000 to 29,999..... ( )
e) $30,000 to 34,999..... ( )
f) $35,000 to 39,999..... ( )
g) $40,000 to 44,999..... ( )
h) $45,000 or over..... ( )

Q19. How old will you be, or were you, at CRA? (.....)

Q20. How old are you now? (.....)

Q21. How were you assessed by your supervisors on your performance in your last five years of service? Check one area below:
a) Below average... ( )
b) Average..... ( )
c) Above average... ( )

Q22. In my last 5 years in the CF I was or will be:
a) Single (never married)..... ( )
b) Married..... ( )
c) Other (specify)..... ( )

Q23. In my last 5 years in the CF I had or will have:
a) No dependent children..... ( )
b) One or two dependent children..... ( )
c) More than two dependent children... ( )

Q24. Are you satisfied with your current retirement plans as they relate to:

	Extremely Satisfied	Somewhat Satisfied	Satisfied	Un-satisfied	Definitely Un-satisfied
a) Finances....	( )	( )	( )	( )	( )
b) Geographical move.....	( )	( )	( )	( )	( )
c) Employment..	( )	( )	( )	( )	( )
d) Housing.....	( )	( )	( )	( )	( )
e) Leisure.....	( )	( )	( )	( )	( )

Q25. SCAN participation:

a) I am participating in SCAN..... ( )
b) I am not participating in SCAN... ( )
c) I participated in SCAN..... ( )
d) I did not participate in SCAN.... ( )

Appendix V

SECTION B

Read each item carefully and place a (X) in one of the five spaces which best expresses your feeling about the statement.

I.E. Old dogs can learn new tricks.

STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE
	X			

By placing the mark in the second space, the respondent indicates that s/he agrees with the statement.

B1. A person can learn more by working four years than going to university.

STRONGLY AGREE				STRONGLY DISAGREE

B2. The more education a person has the better s/he is able to enjoy life.

STRONGLY AGREE				STRONGLY DISAGREE

B3. Education helps a person use leisure time to better advantage.

STRONGLY AGREE				STRONGLY DISAGREE

B4. A good education is a great comfort to a person out of work.

STRONGLY AGREE				STRONGLY DISAGREE

B5. Only subjects like reading, writing and arithmetic should be taught at public expense.

STRONGLY AGREE				STRONGLY DISAGREE

B6. Education is no help in getting a job today.

STRONGLY AGREE				STRONGLY DISAGREE

B7. Most young people are getting too much education.

STRONGLY AGREE				STRONGLY DISAGREE

B8. A university education is worth all the time and effort it requires.

STRONGLY AGREE				STRONGLY DISAGREE

B9. Our schools encourage individuals to think for themselves.

STRONGLY AGREE				STRONGLY DISAGREE

B10. There are too many fads and frills in modern education.

STRONGLY AGREE				STRONGLY DISAGREE

B11. Education only makes a person discontented.

STRONGLY AGREE				STRONGLY DISAGREE

B12. School training is of little help in meeting the problems of life.

STRONGLY AGREE				STRONGLY DISAGREE

B13. Education tends to make a person less conceited.

STRONGLY AGREE				STRONGLY DISAGREE

B14. Solution of the world's problems will come through education.

STRONGLY AGREE				STRONGLY DISAGREE

B15. High school courses are too impractical.

---/---/---/---/---/

STRONGLY AGREE — STRONGLY DISAGREE

B16. A person is foolish to keep going to school if a job is available.

---/---/---/---/---/

STRONGLY AGREE — STRONGLY DISAGREE

B17. Savings spent on education are wisely invested.

---/---/---/---/---/

STRONGLY AGREE — STRONGLY DISAGREE

B18. An educated person can advance more rapidly in business and industry.

---/---/---/---/---/

STRONGLY AGREE — STRONGLY DISAGREE

B19. Parents should not be compelled to send their children to school

---/---/---/---/---/

STRONGLY AGREE — STRONGLY DISAGREE

B20. My education and/or training experiences were very important to me solely due to their being required by the job.

---/---/---/---/---/

STRONGLY AGREE — STRONGLY DISAGREE

B21. Education is more valuable than most people think.

---/---/---/---/---/

STRONGLY AGREE — STRONGLY DISAGREE

B22. A high school education makes a person a better citizen.

---/---/---/---/---/

STRONGLY AGREE — STRONGLY DISAGREE

B23. My years in school were totally frustrating.

STRONGLY AGREE				STRONGLY DISAGREE

B24. Public money spent on education during the past few years could have been used more wisely for other purposes.

STRONGLY AGREE				STRONGLY DISAGREE

B25. My education and/or training experiences were very important to me and not just because my job required them.

STRONGLY AGREE				STRONGLY DISAGREE

B26. My years in school were very enjoyable, I (would have/had) no hesitation in returning to a formal learning environment.

STRONGLY AGREE				STRONGLY DISAGREE

B27. I should have spent more time on my education.

STRONGLY AGREE				STRONGLY DISAGREE

B28. I place a very high value on education.

STRONGLY AGREE				STRONGLY DISAGREE

Appendix VI

SECTION AB

Please answer each of the 40 questions in the "YES" or the "NO" column. If the question describes how you usually feel, make a mark (X) in the "YES" column. If the question does NOT describe how you usually feel, make a mark (X) in the "NO" column.

THIS IS NOT A TEST, THERE ARE NO "RIGHT" OR "WRONG" ANSWERS.

		YES	NO
AB1.	Do you have only a few friends?	( )	( )
AB2.	Are you happy most of the time?	( )	( )
AB3.	Can you do most things as well as other people?	( )	( )
AB4.	Do you like everyone you know?	( )	( )
AB5.	Do you spend most of your free time alone?	( )	( )
AB6.	Do you like being a male?/Do you like being a female?	( )	( )
AB7.	Do most people you know like you?	( )	( )
AB8.	Are you usually successful when you attempt important tasks or duty assignments?	( )	( )
AB9.	Have you ever taken anything that did not belong to you?	( )	( )
AB10.	Are you as intelligent as most people?	( )	( )
AB11.	Do you feel you are as important as most people?	( )	( )
AB12.	Are you easily depressed?	( )	( )
AB13.	Would you change many things about yourself if you could?	( )	( )
AB14.	Do you always tell the truth?	( )	( )
AB15.	Are you as nice looking as most people?	( )	( )
AB16.	Do many people dislike you?	( )	( )
AB17.	Are you usually tense or anxious?	( )	( )
AB18.	Are you lacking in self-confidence?	( )	( )
AB19.	Do you gossip at times?	( )	( )

	YES	NO
AB20. Do you often feel that you are no good at all?	( )	( )
AB21. Are you as strong and healthy as most people?	( )	( )
AB22. Are your feelings easily hurt?	( )	( )
AB23. Is it difficult for you to express your views or feelings?	( )	( )
AB24. Do you ever get angry?	( )	( )
AB25. Do you often feel ashamed of yourself?	( )	( )
AB26. Are other people generally more successful than you are?	( )	( )
AB27. Do you feel uneasy much of the time without knowing why?	( )	( )
AB28. Would you like to be as happy as others appear to be?	( )	( )
AB29. Are you ever shy?	( )	( )
AB30. Are you a failure?	( )	( )
AB31. Do people like your ideas?	( )	( )
AB32. Is it hard for you to meet new people?	( )	( )
AB33. Do you ever lie?	( )	( )
AB34. Are you often upset about something?	( )	( )
AB35. Do most people respect your views?	( )	( )
AB36. Are you more sensitive than most people?	( )	( )
AB37. Are you as happy as most people?	( )	( )
AB38. Are you ever sad?	( )	( )
AB39. Are you definitely lacking in initiative?	( )	( )
AB40. Do you worry a lot?	( )	( )

Appendix VII

SECTION CA

What are, or were, your goals or objectives in relation to the SCAN Programme? Please rate all items in relation to their importance for you. Please place a (X) in the appropriate space.

	Very Important	Fairly Important	Important	Slightly Important	Not Important
CA1. Become better informed					
CA2. Personal enjoyment....					
CA3. Meet new people.....					
CA4. Become better prepared for CF retirement.....					
CA5. Get away from routine.					
CA6. Understand the problems of others....					
CA7. Serve the CF better...					
CA8. Further my emotional well-being.....					
CA9. Work for solutions to problems.....					
CA10. Feel a sense of belonging.....					
CA11. Get away from personal problems.....					
CA12. Improve communications within my family.....					
CA13. Curiosity, learning for the sake of learning..					
CA14. Become a better serviceperson.....					
CA15. Learn in order to pass on to others.....					
CA16. To follow orders.....					

Appendix VIII

SECTION CB

In this section your interest in learning new things will be looked at.

CB1. Is there anything in particular that you'd like to learn more about, or would like to learn how to do better? If your answer is "YES" please continue, if your answer is "NO", then please move on to Section D of the survey:

YES ( )..... NO ( )

CB2. Listed below is a wide variety of subjects and skills which people might wish to study or learn. If you had your choice, and didn't have to worry about cost or other responsibilities, how would you rate them in relation to the amount of time you would spend on them. Please mark (X) in the appropriate space.

		A GREAT DEAL OF TIME	A LOT OF TIME	SOME TIME	LESSER TIME	NO TIME
a)	Agriculture, farming..					
b)	Architecture.....					
c)	Basic education (ie. reading, basic math)..					
d)	Biological sciences (ie. biology, botany).					
e)	Business skills (ie. (typing, accounting)..					
f)	Business set-up (ie. laws, licensing).....					
g)	Commercial art (ie. design, fashion).					
h)	Community problems and organizations.....					
i)	Computer science (ie. data processing, programming.....					
j)	Consumer education (ie. buying on credit)					

		A GREAT DEAL OF TIME	A LOT OF TIME	SOME TIME	LESSER TIME	NO TIME
k)	Cosmetology, such as beauticians.....	--------/	--------/	--------/	--------/	-------
l)	Crafts (ie. weaving, pottery, woodworking).	--------/	--------/	--------/	--------/	-------
m)	Creative writing.....	--------/	--------/	--------/	--------/	-------
n)	Education, teacher training.....	--------/	--------/	--------/	--------/	-------
p)	Engineering.....	--------/	--------/	--------/	--------/	-------
q)	English language training.....	--------/	--------/	--------/	--------/	-------
r)	Environmental studies (ie. ecology, conservation).....	--------/	--------/	--------/	--------/	-------
s)	Fine and visual arts (ie. art, photography)	--------/	--------/	--------/	--------/	-------
t)	Flight training.....	--------/	--------/	--------/	--------/	-------
u)	Home repairs.....	--------/	--------/	--------/	--------/	-------
v)	Humanities (ie. literature, philosophy, music).....	--------/	--------/	--------/	--------/	-------
w)	Industrial trades (ie. welding, carpentry)...	--------/	--------/	--------/	--------/	-------
x)	Investment (ie. money, finance).....	--------/	--------/	--------/	--------/	-------
y)	Journalism.....	--------/	--------/	--------/	--------/	-------
z)	Law.....	--------/	--------/	--------/	--------/	-------
aa)	Management skills (ie. business administration).....	--------/	--------/	--------/	--------/	-------
bb)	Medical technology (ie. x-ray tech, dental tech).....	--------/	--------/	--------/	--------/	-------

		A GREAT DEAL OF TIME	A LOT OF TIME	SOME TIME	LESSER TIME	NO TIME
cc)	Medicine, dentistry...					
dd)	Nursing.....					
ee)	Personal psychology (ie. encounter groups, everyday life).....					
ff)	Physical fitness/self defence.....					
gg)	Physical sciences (ie. physics, math, chemistry).....					
hh)	Public affairs (ie. current events, world problems).....					
ii)	Public speaking.....					
jj)	Religious studies (ie. the Bible, meditation)					
kk)	Retirement planning (ie. upgrading skills already held, learning new skills for a new career).....					
ll)	Salesmanship.....					
mm)	Sewing, cooking.....					
nn)	Social sciences (ie. economics, sociology).					
pp)	Technical skills (ie. auto-mechanics, tv repair).....					
qq)	Other (Please write in).....					

CB3. In relation to those subject areas you indicated are worth a "GREAT DEAL OF TIME", how important to you is or was receiving a credit towards a degree, or some other certificate of satisfactory completion of the course requirements? Mark (X) one space:

VERY IMP	IMP	OK	HAS MINIMAL VALUE	NOT IMP

CB4. There are many ways in which people can take a course of study. How would you want to learn this area if you could do it any way you wanted? Please rate the options listed on the scale provided, mark (X) the appropriate space:
NOTE: Pref'd = Preferred
Strgly = Strongly

	STRGLY PREF'D	PREF'D	ACCEPT-TABLE	NOT ACCEPT-TABLE	AVOID AT ALL COSTS
a) Lectures or classes.					
b) Short term conferences, institutes or workshops.....					
c) Individual lessons from a private teacher.....					
d) Discussion groups, informal book club or study group.....					
e) Travel-study programme.....					
f) On-job-training.....					
g) Correspondence course.....					
h) T.V. or video cassettes.....					
i) Radio, records, or audio cassettes.....					
j) Work on a group action project.....					
k) Study on my own, no formal instruction..					

CB5. How often would you want to attend classes, training sessions, or study on your own? Rate the following course time commitments, mark (X) the appropriate space:
NOTE: Strgly = Strongly
Slgtly = Slightly

	STRGLY AGREE	SLGTLY AGREE	AGREE	SLGTLY DIS-AGREE	STRGLY DIS-AGREE
a) One evening a week..					
b) Two or more evenings per week.....					
c) One morning or afternoon a week.....					
d) Two or more mornings or afternoons a week					
e) One full day a week.					
f) Two or more full days a week.....					
g) One weekend-day a week.....					
h) Both weekend days a week.....					
i) One or two evenings/ week plus some weekends.....					
j) One or two evenings a week plus one or two weeks during the summer.....					
k) Two weeks to a month during the summer...					

CB6. There are many places people can study or learn. Please rate the following in relation to your feelings towards them as places for learning. Please mark (X) the appropriate space:
NOTE: Strgly = Strongly

	STRGLY PREFER	PREFER	LIKE	DIS-LIKE	STRGLY DIS-LIKE
a) Public high school day or evening.....					

	STRGLY PREFER	PREFER	LIKE	DIS-LIKE	STRGLY DIS-LIKE
b) Public two year college or technical institute.....					
c) Private vocational, trade or business school.....					
d) Four-year college or university.....					
e) Graduate school.....					
f) Community run "free school".....					
g) Business or industrial site.....					
h) Employer.....					
i) Religious institution or group.....					
j) Community or social organization, such as the YMCA.....					
k) Correspondence school.....					
l) Government agency (federal, provincial or municipal).....					
m) Library or other cultural institution (ie. museum).....					
n) Fine or performing arts or crafts studio					
p) Recreational or sports group.....					
q) Individual instructor.....					
r) Home.....					

Appendix IX

SECTION D

The following items describe a variety of life events. Please read down the list and place a mark (X) behind any events you have experienced in the last year.

D1. A change in your own personal health or that of a family member..... ( )

D2. A change in relationship to your work..... ( )

D3. A change in your financial circumstances..... ( )

D4. A change in living conditions..... ( )

D5. A change involving your relationships with others..... ( )

D6. A change involving any member of your family..... ( )

D7. A minor violation of the law..... ( )

D8. A change in church activities..... ( )

D9. A change in your recreation..... ( )

D10. A change in social activities..... ( )

D11. A change in the learning activities of you or a family member..... ( )

D12. Other (please write in)..... ( )

Appendix X

SECTION E

Many things stop people from taking a course of study or learning a new skill.

Check ("YES" or "NO") for all those listed below that you feel are important in keeping you from learning what you wish to learn.

Once you have completed your list, place the number of the three most important from the "YES" list in the spaces designated at the end of this question.

		YES	NO
E1.	Cost, including books, learning materials, child care, transportation, as well as tuition.....	( )	( )
E2.	No enough time.....	( )	( )
E3.	Amount of time required to complete a programme.....	( )	( )
E4.	No way to get credit for a certificate or degree.....	( )	( )
E5.	Strict attendance requirements.....	( )	( )
E6.	Don't know what I'd like to learn or what it would lead to.....	( )	( )
E7.	No place to study or practice.....	( )	( )
E8.	No child care.....	( )	( )
E9.	Courses I want aren't scheduled when I can attend.....	( )	( )
E10.	Don't want to go to school full time.....	( )	( )
E11.	No information about places or people offering what I want.....	( )	( )
E13.	Too much red tape getting enrolled.....	( )	( )
E14.	Hesitate to seem ambitious.....	( )	( )
E15.	Friends or family don't like the idea.....	( )	( )
E16.	Home responsibilities.....	( )	( )
E17.	Job responsibilities.....	( )	( )
E18.	Not enough energy or stamina.....	( )	( )
E19.	Afraid that I'm too old to begin.....	( )	( )

	YES	NO
E20. Low grades in the past, not confident of my ability.....	( )	( )
E21. Don't meet requirements to begin programme.....	( )	( )
E22. Courses I want don't seem to be available.....	( )	( )
E23. Don't enjoy studying.....	( )	( )
E24. Tired of going to school, tired of classrooms.....	( )	( )

E25. NOW PICK THE THREE MOST IMPORTANT REASONS and place their number in the spaces provided below:

a) ----------

b) ----------

c) ----------

Appendix XI

SECTION F

How did you become aware of the SCAN programme?

F1. Please mark (X) "YES" or "NO" for the following forms of information dissemination:

	YES	NO
a) Letter sent from Personnel Selection Officer/ Base Training Officer	( )	( )
b) Announcement in unit newspaper/info sheet	( )	( )
c) Entry in Routine Orders	( )	( )
d) Unit radio programme	( )	( )
e) Unit television programme	( )	( )
f) Close friend	( )	( )
g) Workmate	( )	( )
h) Wife/husband	( )	( )
i) Supervisor	( )	( )
j) Poster on unit/section bulletin board	( )	( )
k) Padre	( )	( )
l) Social Work Officer	( )	( )
m) Leadership/management course data	( )	( )
n) Contact with a member who had participated in SCAN	( )	( )
p) The Personnel Newsletter from NDHQ	( )	( )
q) The Sentinal (the formal CF magazine)	( )	( )
r) A trade/branch/organization within the CF unofficial information distribution brochure, magazine, etc	( )	( )
s) Other, please specify: (.....).	( )	( )

F2. Please place the number of the THREE MOST EFFECTIVE methods for you from the above list in the following spaces:

(.....) (.....) (.....)

F3. The information I have received on the SCAN programme was readily available.

STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE

PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE ABOUT THIS SURVEY, SCAN OR ANY RELATED MATTER. THANK YOU VERY MUCH FOR YOUR HELP -- IT DOES COUNT!